



Rapport bibliométrique du Pôle M4 2016-2025

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**UNIVERSITÉ
DE LORRAINE**

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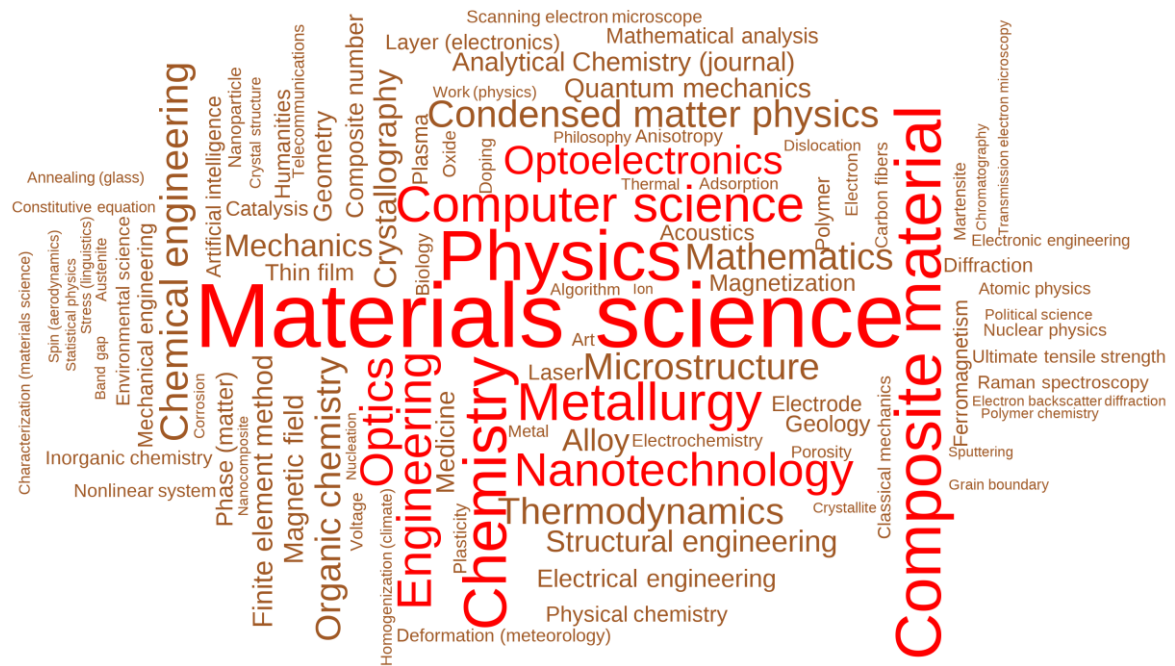
POLE M4

Ce rapport bibliométrique s'appuie sur les publications du pôle M4 obtenues à partir de la base de données OpenAlex et couvrant la période 2016-2025. Il contient également des éléments de contexte à l'échelle de l'Université de Lorraine ou national. La liste des publications peut être consultée sur le lien suivant :

[lien](#)

La majorité des données présentées dans ce document sont le résultat de traitements sur des données de nature imparfaite qui dépendent de la qualité du référencement par OpenAlex. Malgré le soin que nous avons pris à corriger les erreurs que nous avons repérées, ces chiffres contiennent sans doute encore quelques anomalies. Ils doivent donc être considérés comme un ordre de grandeur de bonne qualité et non pas comme des valeurs parfaitement exactes. Les indicateurs relatifs au « Top % » liés au nombre de citations, sont des estimations qui doivent être interprétées avec précaution.

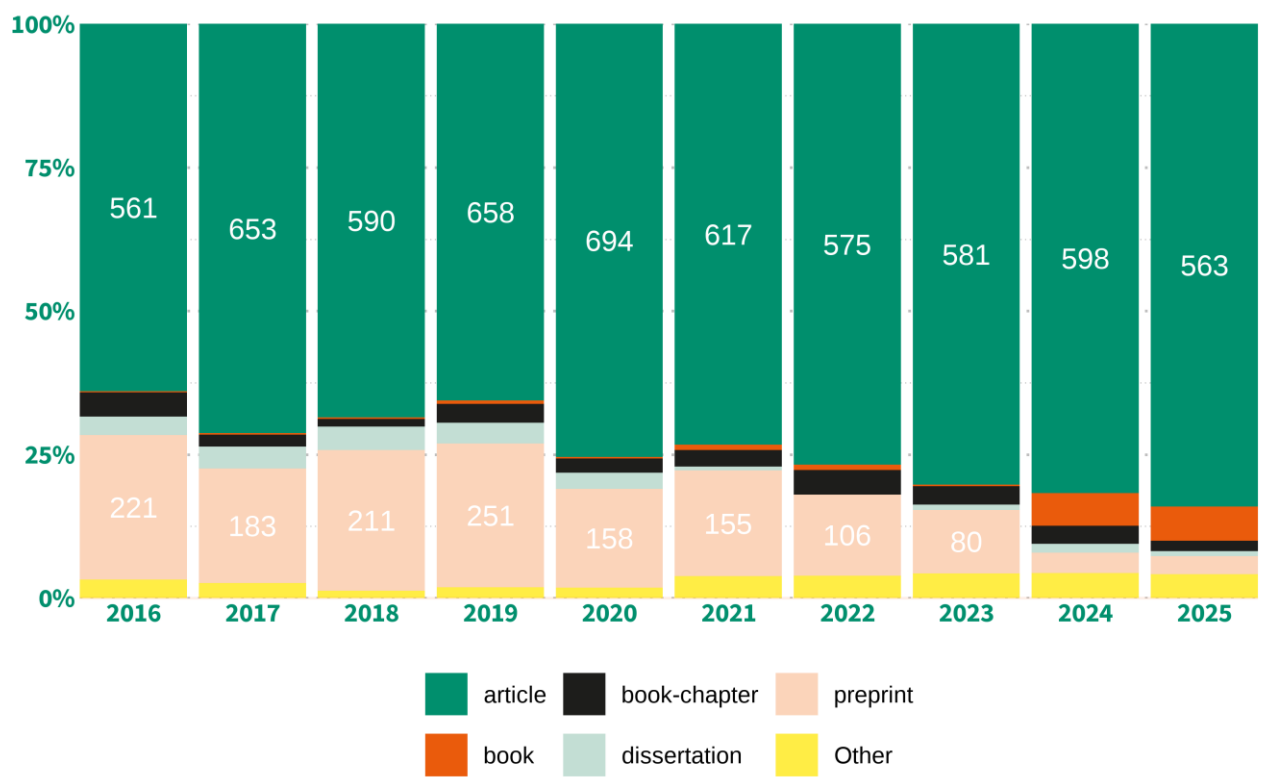
1.1 Mots-clefs significatifs utilisés dans les publications



1.2 Nombre de publications par an et par type de document

Pour le pôle M4

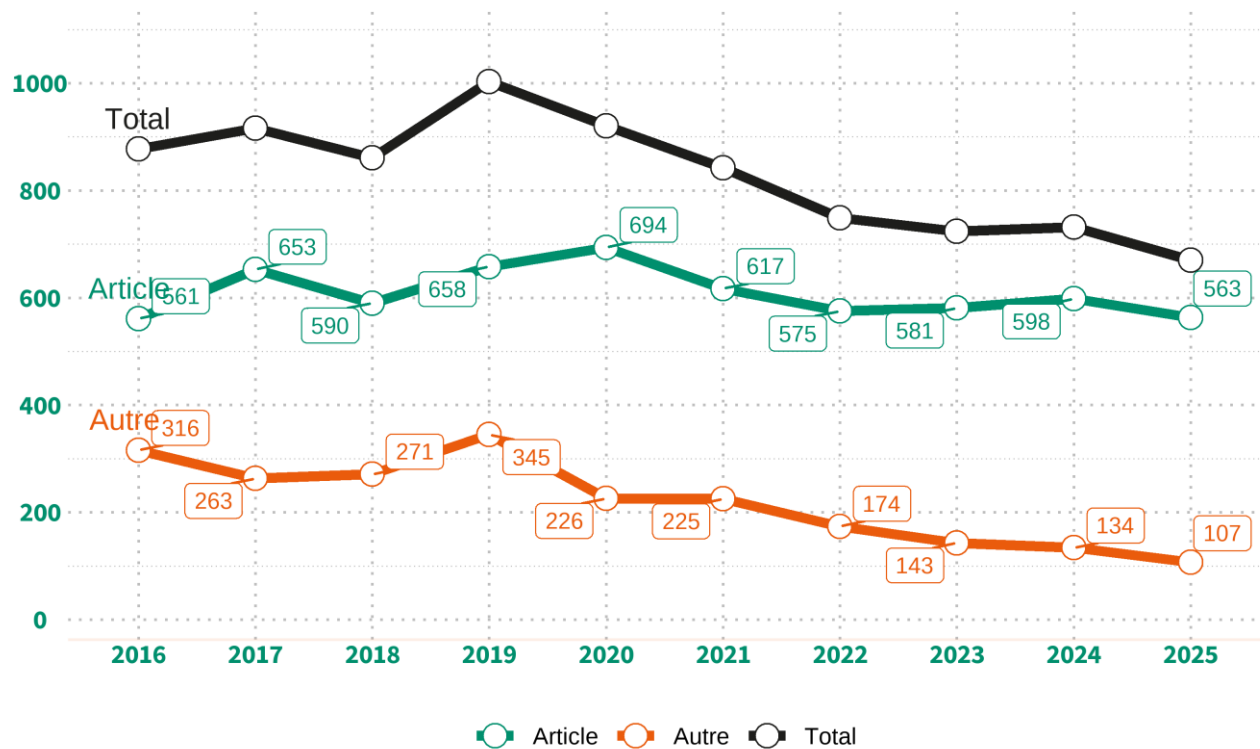
Nombre de publications selon le type de document par an



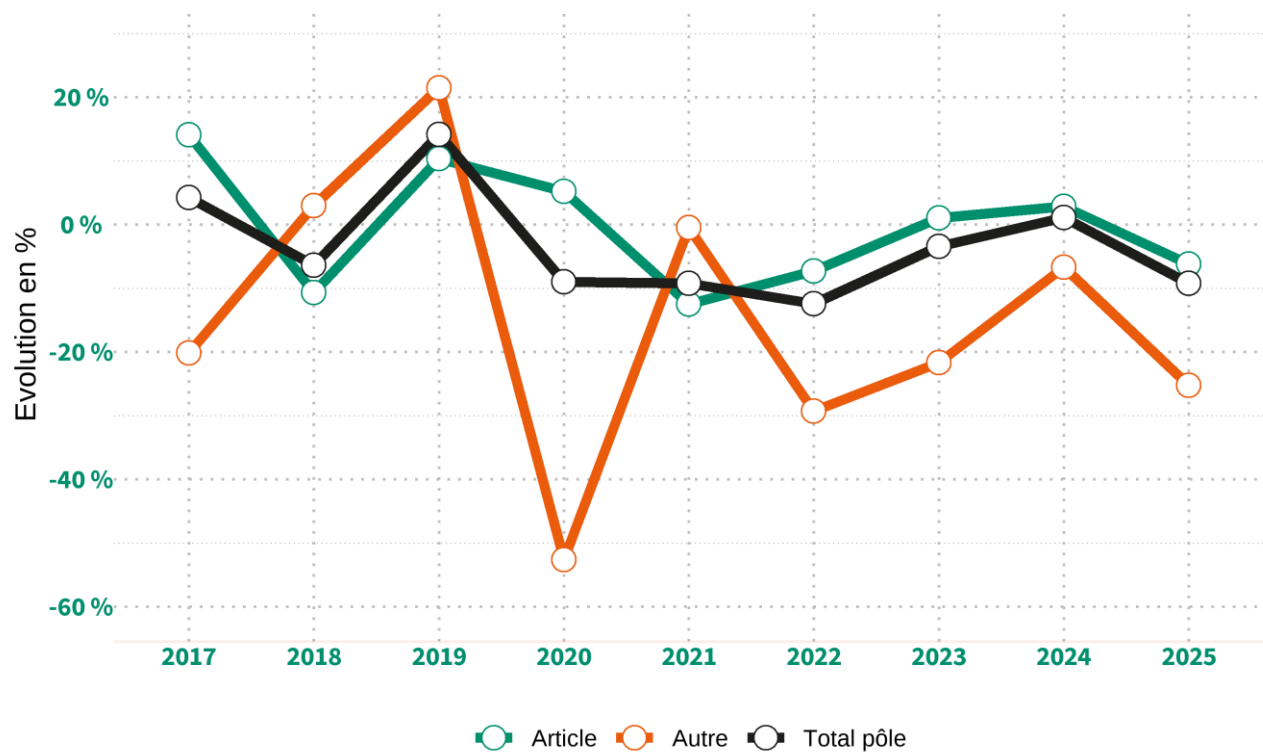
Type de document	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
article	561 (64%)	653 (71%)	590 (69%)	658 (66%)	694 (75%)	617 (73%)	575 (77%)	581 (80%)	598 (82%)	563 (84%)	6,090 (73%)
book	2 (0%)	2 (0%)	2 (0%)	6 (1%)	2 (0%)	8 (1%)	7 (1%)	2 (0%)	42 (6%)	40 (6%)	113 (1%)
book-chapter	37 (4%)	19 (2%)	12 (1%)	33 (3%)	23 (2%)	24 (3%)	32 (4%)	23 (3%)	23 (3%)	12 (2%)	238 (3%)
dissertation	28 (3%)	35 (4%)	35 (4%)	36 (4%)	26 (3%)	6 (1%)	0 (0%)	7 (1%)	11 (2%)	6 (1%)	190 (2%)
editorial	0 (0%)	1 (0%)	1 (0%)	1 (0%)	0 (0%)	1 (0%)	2 (0%)	3 (0%)	1 (0%)	0 (0%)	10 (0%)
erratum	0 (0%)	1 (0%)	0 (0%)	7 (1%)	1 (0%)	3 (0%)	0 (0%)	2 (0%)	5 (1%)	3 (0%)	22 (0%)
letter	2 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)	4 (0%)
other	14 (2%)	2 (0%)	1 (0%)	3 (0%)	2 (0%)	5 (1%)	6 (1%)	6 (1%)	17 (2%)	5 (1%)	61 (1%)
paratext	1 (0%)	0 (0%)	1 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	4 (0%)
peer-review	2 (0%)	14 (2%)	2 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	18 (0%)
preprint	221 (25%)	183 (20%)	211 (25%)	251 (25%)	158 (17%)	155 (18%)	106 (14%)	80 (11%)	26 (4%)	21 (3%)	1,412 (17%)

Type de document	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
report	1 (0%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)	6 (1%)	4 (1%)	5 (1%)	1 (0%)	7 (1%)	26 (0%)
review	8 (1%)	6 (1%)	6 (1%)	7 (1%)	12 (1%)	16 (2%)	17 (2%)	15 (2%)	7 (1%)	11 (2%)	105 (1%)
software	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)
Total	877 (100%)	916 (100%)	861 (100%)	1,003 (100%)	920 (100%)	842 (100%)	749 (100%)	724 (100%)	732 (100%)	670 (100%)	8,294 (100%)

Nombre de publications par an



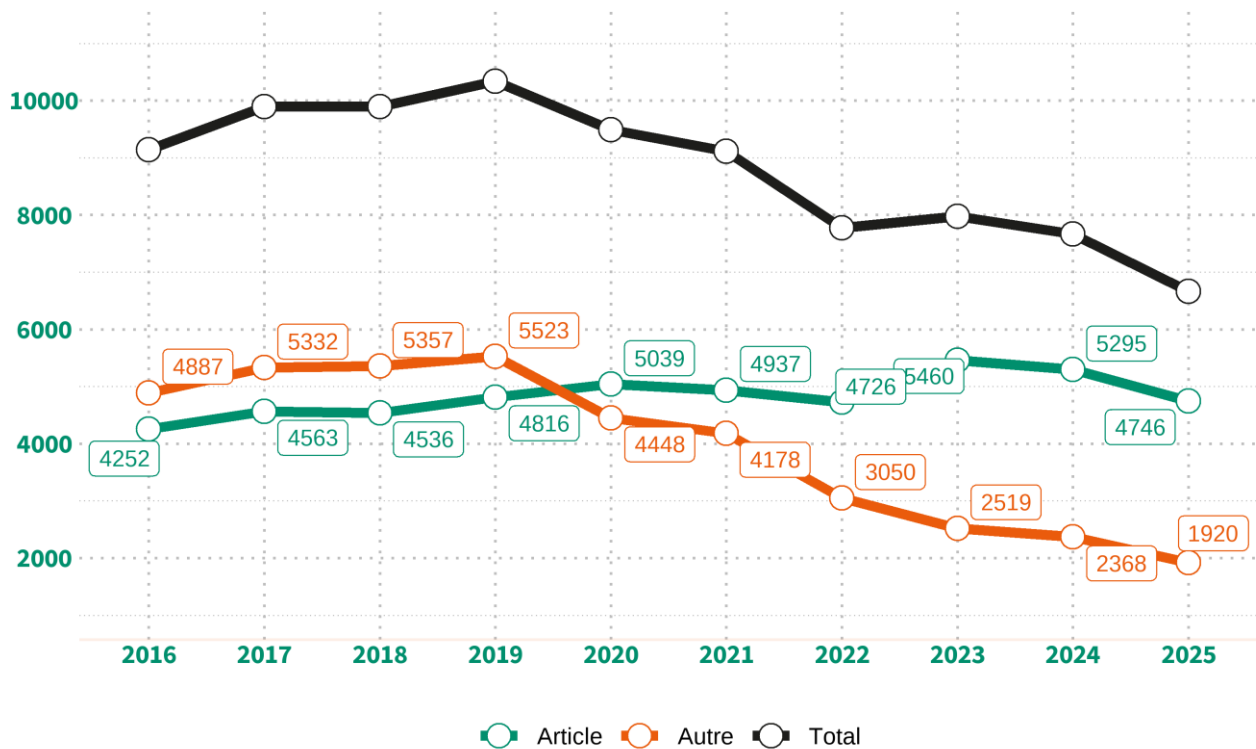
Evolution du nombre de publications par rapport à l'année précédente en %



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Article										
Nombre de publications	561	653	590	658	694	617	575	581	598	563
Evolution annuelle		14 %	-11 %	10 %	5 %	-12 %	-7 %	1 %	3 %	-6 %
Autre										
Nombre de publications	316	263	271	345	226	225	174	143	134	107
Evolution annuelle		-20 %	3 %	21 %	-53 %	0 %	-29 %	-22 %	-7 %	-25 %
Total pôle										
Nombre de publications	877	916	861	1003	920	842	749	724	732	670
Evolution annuelle		4 %	-6 %	14 %	-9 %	-9 %	-12 %	-3 %	1 %	-9 %
Total UL										
Nombre de publications	9139	9895	9893	10339	9487	9115	7776	7979	7663	6666
Evolution annuelle		8 %	0 %	4 %	-9 %	-4 %	-17 %	3 %	-4 %	-15 %

Pour l'Université de Lorraine

Nombre de publications par an

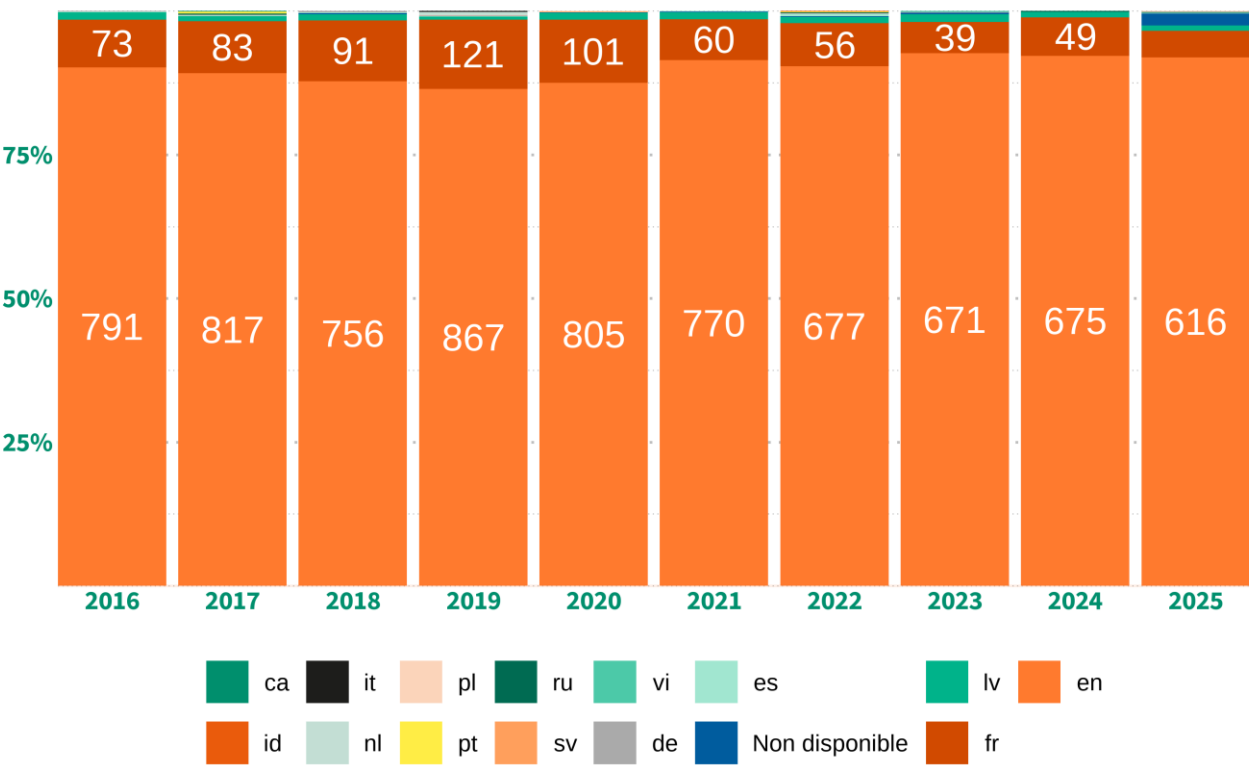


Type de document	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
article	4,642 (47%)	5,010 (47%)	4,982 (46%)	5,314 (47%)	5,560 (54%)	5,496 (55%)	5,344 (62%)	6,074 (69%)	5,947 (70%)	5,268 (72%)	53,637 (56%)
book	77 (1%)	100 (1%)	74 (1%)	79 (1%)	78 (1%)	83 (1%)	80 (1%)	115 (1%)	169 (2%)	132 (2%)	987 (1%)
book-chapter	543 (6%)	548 (5%)	488 (5%)	538 (5%)	505 (5%)	623 (6%)	569 (7%)	774 (9%)	735 (9%)	557 (8%)	5,880 (6%)
dissertation	381 (4%)	400 (4%)	340 (3%)	397 (4%)	311 (3%)	197 (2%)	127 (1%)	173 (2%)	256 (3%)	128 (2%)	2,710 (3%)
editorial	20 (0%)	26 (0%)	23 (0%)	27 (0%)	36 (0%)	36 (0%)	35 (0%)	41 (0%)	43 (1%)	36 (0%)	323 (0%)
erratum	14 (0%)	20 (0%)	19 (0%)	21 (0%)	18 (0%)	17 (0%)	21 (0%)	24 (0%)	36 (0%)	18 (0%)	208 (0%)
letter	40 (0%)	51 (0%)	60 (1%)	48 (0%)	52 (1%)	54 (1%)	58 (1%)	48 (1%)	47 (1%)	44 (1%)	502 (1%)
other	53 (1%)	46 (0%)	61 (1%)	73 (1%)	84 (1%)	108 (1%)	93 (1%)	208 (2%)	278 (3%)	221 (3%)	1,225 (1%)
paratext	11 (0%)	14 (0%)	20 (0%)	15 (0%)	19 (0%)	19 (0%)	17 (0%)	32 (0%)	12 (0%)	19 (0%)	178 (0%)
peer-review	2 (0%)	14 (0%)	6 (0%)	5 (0%)	3 (0%)	17 (0%)	26 (0%)	42 (0%)	52 (1%)	60 (1%)	227 (0%)
preprint	3,839 (39%)	4,181 (39%)	4,448 (41%)	4,439 (40%)	3,314 (32%)	3,035 (30%)	1,905 (22%)	927 (11%)	584 (7%)	592 (8%)	27,264 (28%)

Type de document	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
reference-entry	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)
report	4 (0%)	12 (0%)	10 (0%)	11 (0%)	12 (0%)	23 (0%)	50 (1%)	72 (1%)	78 (1%)	48 (1%)	320 (0%)
retraction	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)
review	172 (2%)	214 (2%)	196 (2%)	227 (2%)	274 (3%)	282 (3%)	301 (3%)	277 (3%)	240 (3%)	192 (3%)	2,375 (2%)
software	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (0%)	3 (0%)
Total	9,798 (100%)	10,636 (100%)	10,727 (100%)	11,195 (100%)	10,268 (100%)	9,990 (100%)	8,626 (100%)	8,807 (100%)	8,477 (100%)	7,317 (100%)	95,841 (100%)

1.3 Répartition du nombre de publications selon la langue

Nombre de publications par an selon la langue



Pays langue	2020	2021	2024	2025	2016	2018	2019	2022	2023	2017	Total
Allemagne	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	2 (0%)	1 (0%)	1 (0%)	1 (0%)	1 (0%)	7 (0%)
Anglais	805 (88%)	770 (91%)	675 (92%)	616 (92%)	791 (90%)	756 (88%)	867 (86%)	677 (90%)	671 (93%)	817 (89%)	7,445 (90%)
Canada	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)
Espagne	0 (0%)	1 (0%)	0 (0%)	1 (0%)	1 (0%)	1 (0%)	1 (0%)	3 (0%)	0 (0%)	1 (0%)	9 (0%)
France	101 (11%)	60 (7%)	49 (7%)	31 (5%)	73 (8%)	91 (11%)	121 (12%)	56 (7%)	39 (5%)	83 (9%)	704 (8%)
Îles Vierges des États-Unis	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	1 (0%)
Indonésie	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	1 (0%)
Italie	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (0%)
Lettonie	11 (1%)	10 (1%)	7 (1%)	6 (1%)	11 (1%)	9 (1%)	5 (0%)	8 (1%)	10 (1%)	8 (1%)	85 (1%)
Pays-Bas	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	5 (0%)	0 (0%)	0 (0%)	0 (0%)	5 (0%)
Pologne	1 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (0%)

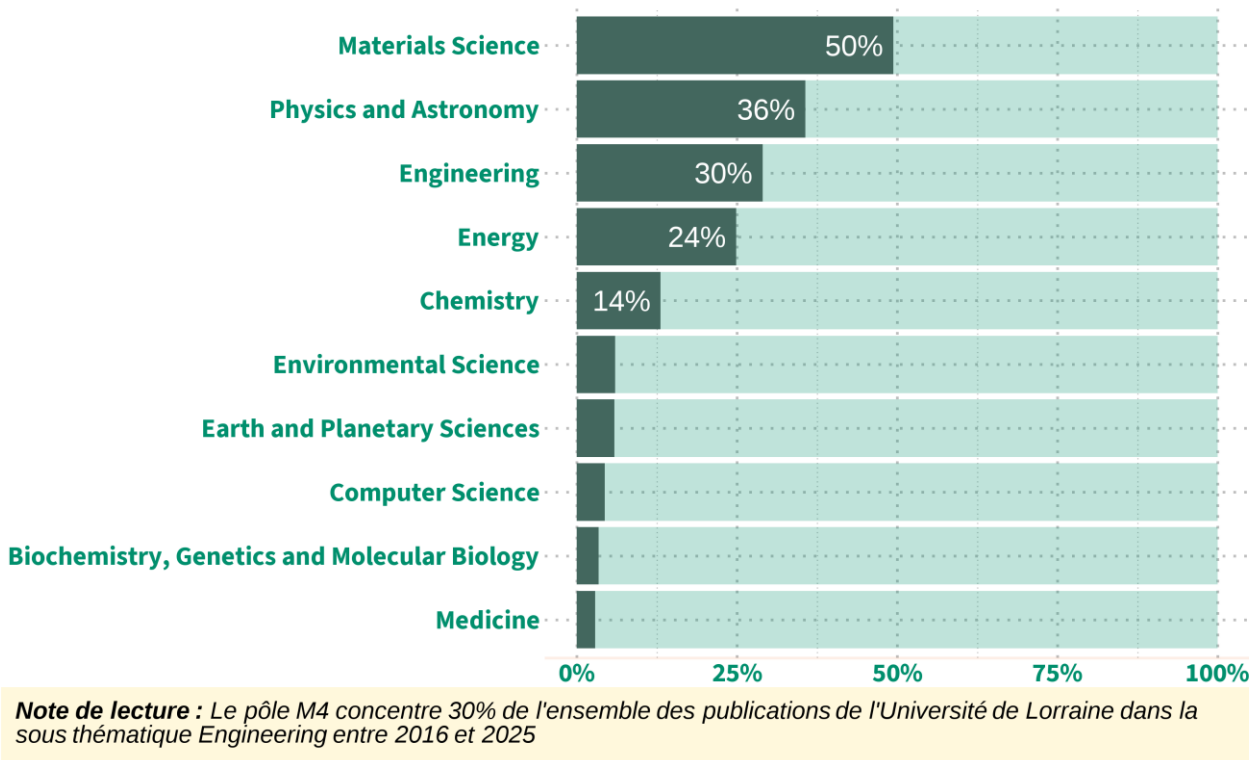
Pays langue	2020	2021	2024	2025	2016	2018	2019	2022	2023	2017	Total
Portugal	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	3 (0%)	4 (0%)
Russie	0 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	2 (0%)	5 (0%)
Salvador	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)
	1 (0%)	1 (0%)	0 (0%)	14 (2%)	0 (0%)	2 (0%)	0 (0%)	1 (0%)	2 (0%)	0 (0%)	21 (0%)
Total	920 (100%)	842 (100%)	732 (100%)	670 (100%)	877 (100%)	861 (100%)	1,003 (100%)	749 (100%)	724 (100%)	916 (100%)	8,294 (100%)

1.4 Nombre de publications par thématique OpenAlex

OpenAlex associe un score de confiance pour chaque thématique. Seules les thématiques avec un score de confiance supérieur à 85% ont été conservées pour cette analyse. La liste de l'ensemble des thématiques peut être consultée [ici](#)



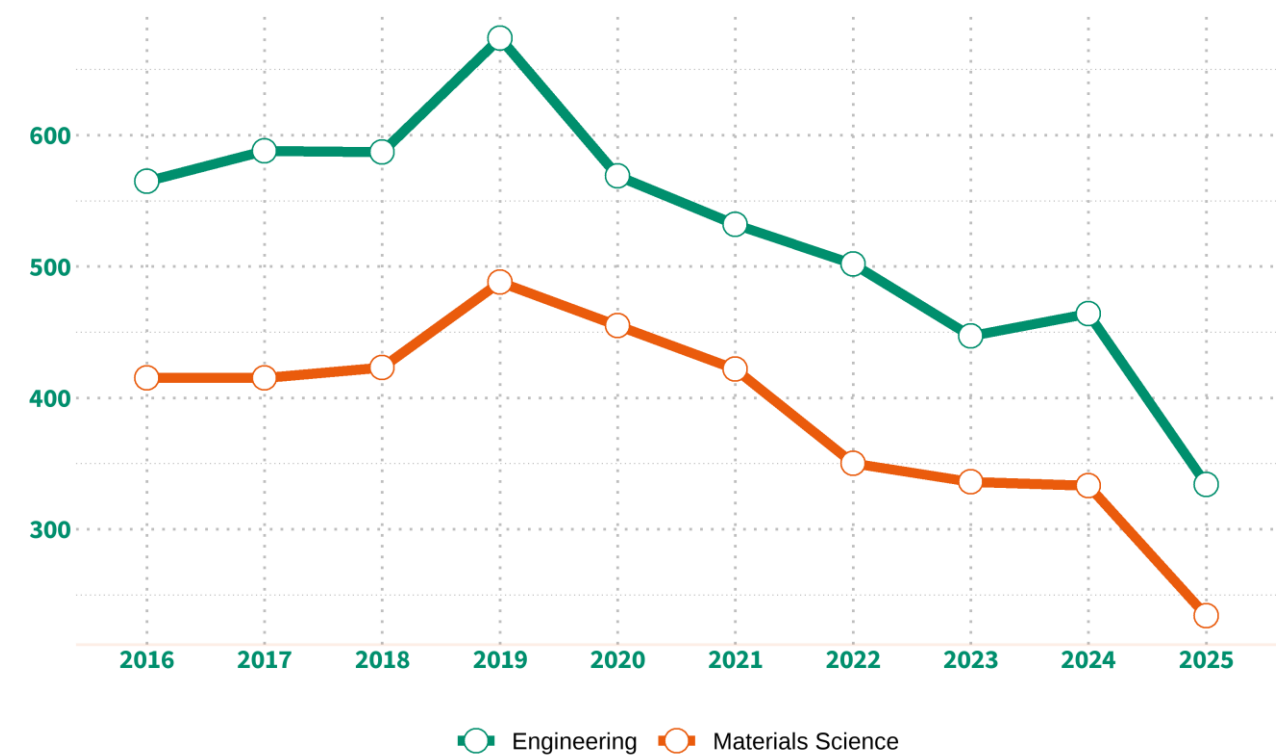
Part des publications (en %) dans une sous thématique sur l'ensemble de l'Université de Lorraine



Autres laboratoires de l'Université de Lorraine, hors pôle M4, publiant dans les sous thématiques principales

Chemistry	Computer Science	Engineering	Materials Science	Physics and Astronomy
EMPP-LRGP (n=398)	AM2I-LORIA (n=2285)	AM2I-CRAN (n=2110)	EMPP-LRGP (n=604)	CPM-LPCT (n=406)
CPM-CRM2 (n=384)	AM2I-CRAN (n=1023)	EMPP-LRGP (n=1362)	CPM-CRM2 (n=379)	OTELo-CRPG (n=391)
CPM-LPCT (n=321)	CLCS-Crem (n=703)	EMPP-LEMTA (n=1223)	CPM-LPCT (n=366)	AM2I-IECL (n=292)
CPM-L2CM (n=206)	AM2I-IECL (n=692)	OTELo-Georessources (n=851)	EMPP-LERMAB (n=363)	EMPP-Green (n=169)
CPM-LCPME (n=186)	OTELo-Georessources (n=357)	EMPP-Green (n=850)	EMPP-LEMTA (n=323)	AM2I-CRAN (n=154)

Evolution du nombre de publication dans les principales sous thématiques



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Engineering										
Nombre de publications	565	588	587	674	569	532	502	447	464	334
Evolution annuelle en %		4 %	0 %	15 %	-16 %	-7 %	-6 %	-11 %	4 %	-28 %
Materials Science										
Nombre de publications	415	415	423	488	455	422	350	336	333	234
Evolution annuelle en %		0 %	2 %	15 %	-7 %	-7 %	-17 %	-4 %	-1 %	-30 %

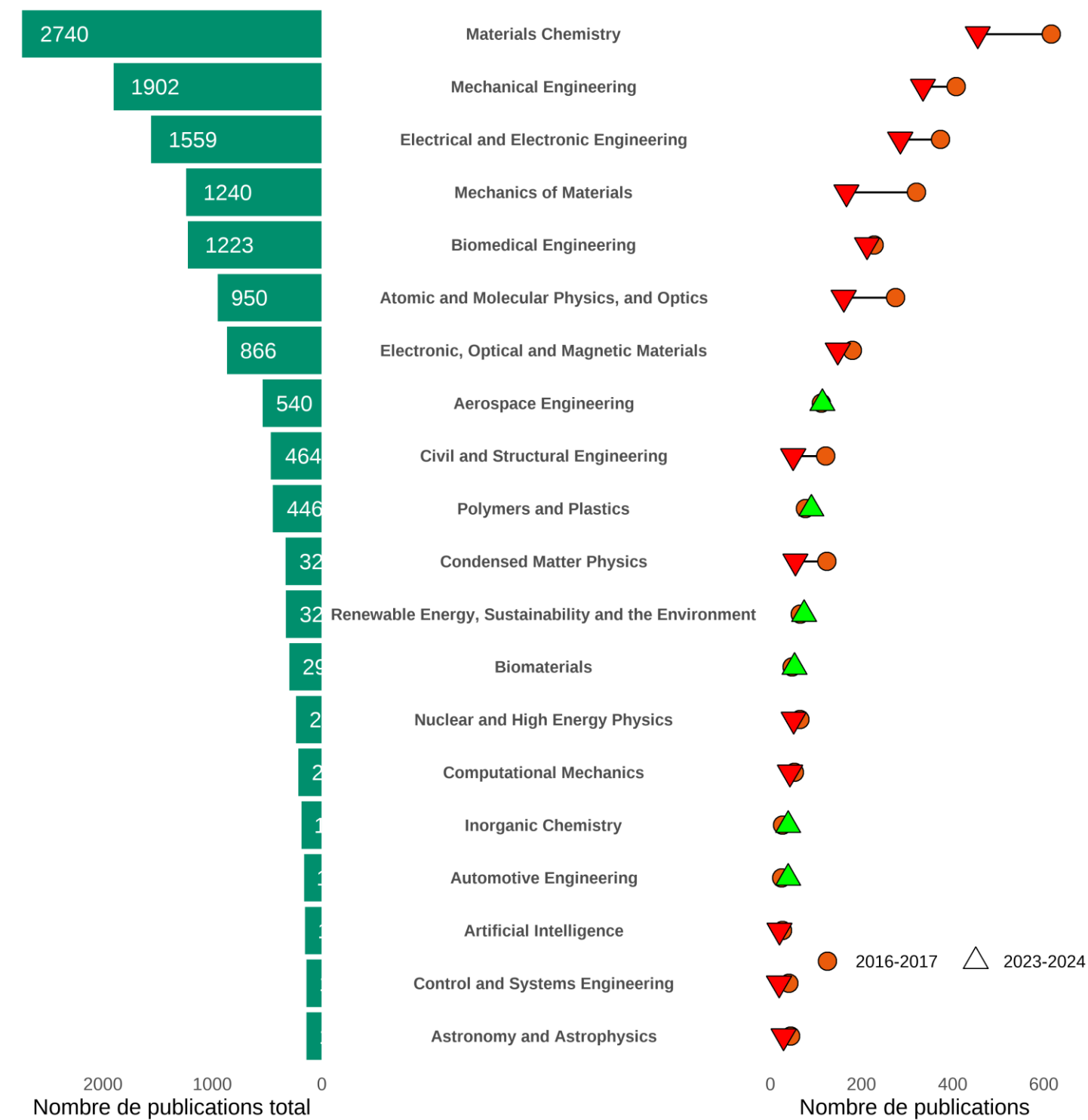
Comparaison avec des données nationales

Pour les résultats comparatifs n'est conservé qu'une seule thématique par publication, la thématique principale attribuée par OpenAlex. C'est à dire celle ayant obtenu le score de confiance le plus important.

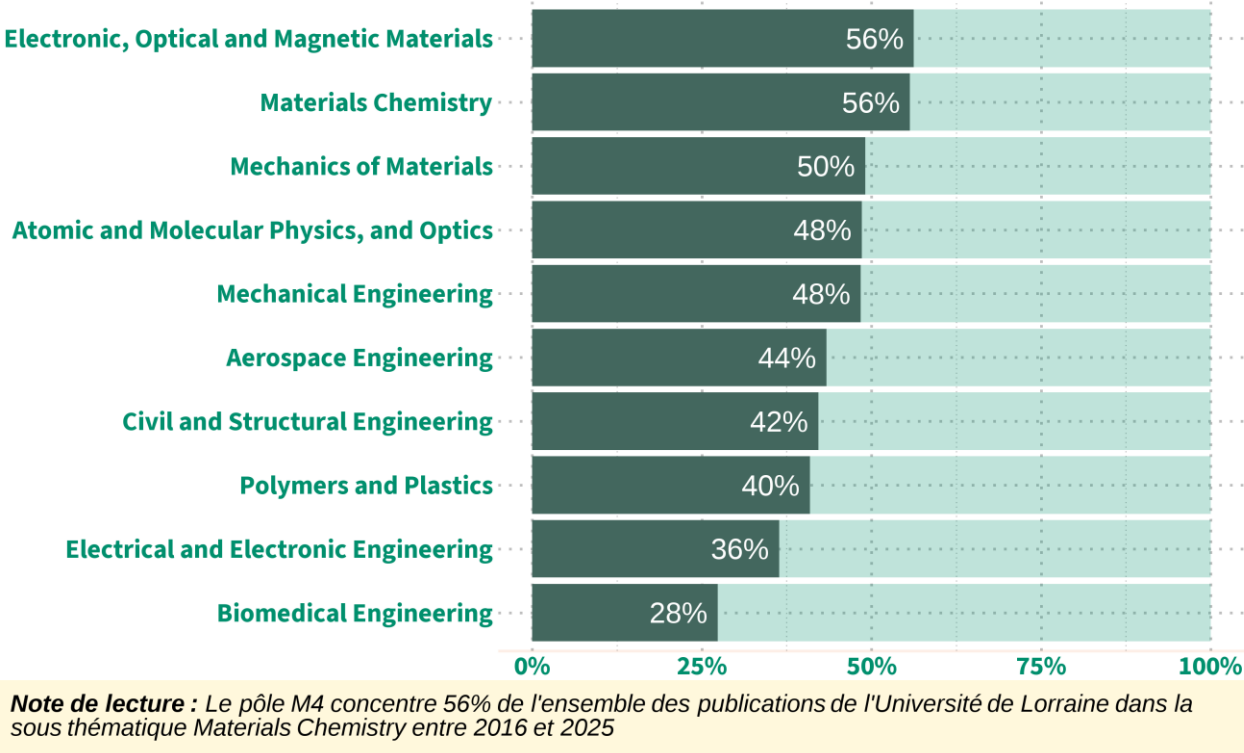
Sous thématique principale	Indicateur	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
M4											
Engineering	Nombre de publications	339	361	352	421	352	351	292	281	300	262
Engineering	Evolution annuelle en %		6 %	-2 %	20 %	-16 %	0 %	-17 %	-4 %	7 %	-13 %
Materials Science	Nombre de publications	250	229	255	296	275	236	219	195	190	162
Materials Science	Evolution annuelle en %		-8 %	11 %	16 %	-7 %	-14 %	-7 %	-11 %	-3 %	-15 %
UL											
Engineering	Nombre de publications	1282	1397	1375	1435	1279	1254	1122	1211	1183	1085
Engineering	Evolution annuelle en %		8 %	-2 %	4 %	-12 %	-2 %	-12 %	7 %	-2 %	-9 %
Materials Science	Nombre de publications	479	444	475	507	458	433	416	382	372	347
Materials Science	Evolution annuelle en %		-8 %	7 %	6 %	-11 %	-6 %	-4 %	-9 %	-3 %	-7 %
France											
Materials Science	Nombre de publications	9528	9073	9100	9014	8244	8146	7880	8151	7750	7796
Materials Science	Evolution annuelle en %		-5 %	0 %	-1 %	-9 %	-1 %	-3 %	3 %	-5 %	1 %
Engineering	Nombre de publications	28904	29519	29417	30064	26170	26604	26941	28796	28437	26119
Engineering	Evolution annuelle en %		2 %	0 %	2 %	-13 %	2 %	1 %	7 %	-1 %	-8 %

1.5 Nombre de publications par sous thématique OpenAlex

OpenAlex associe un score de confiance pour chaque thématique. Seules les thématiques avec un score de confiance supérieur à 85% ont été conservées pour cette analyse. La liste de l'ensemble des thématiques peut être consultée [ici](#).



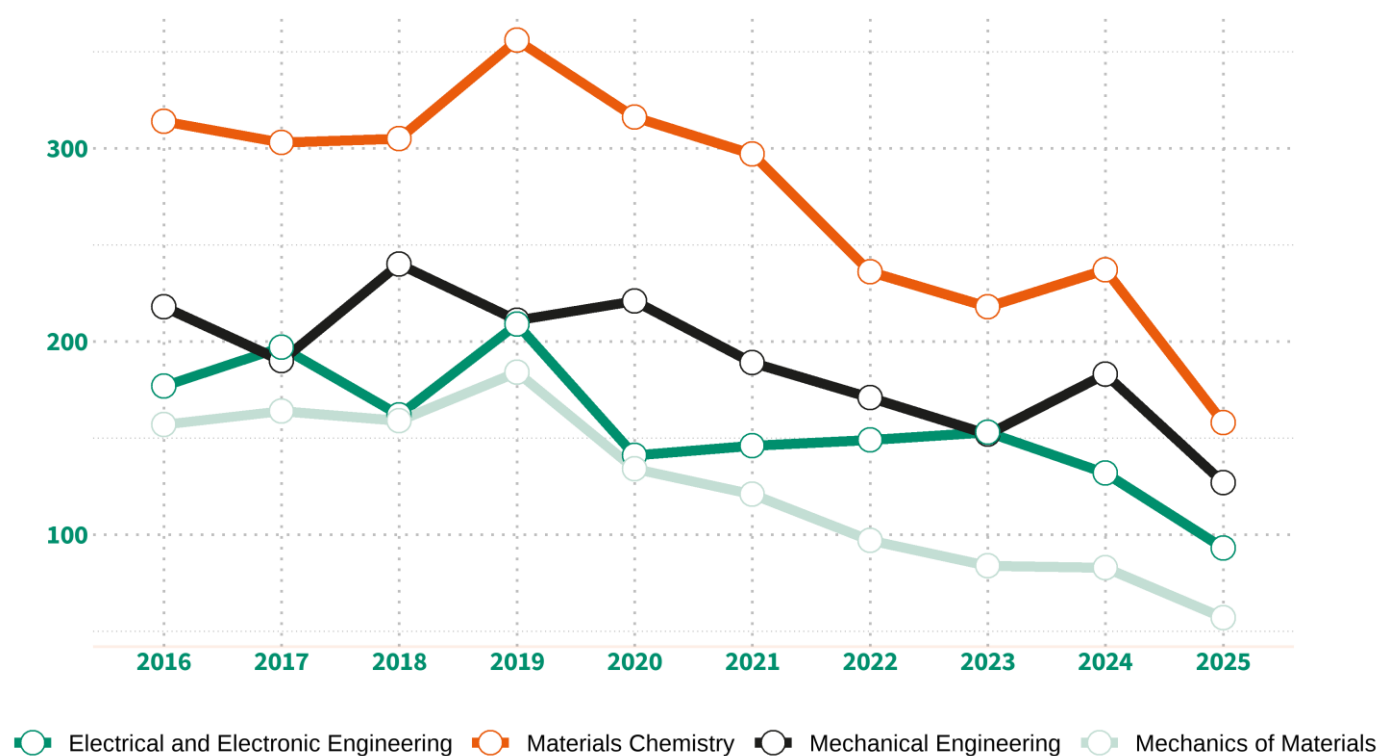
Part des publications (en %) dans une sous thématique sur l'ensemble de l'Université de Lorraine



Autres laboratoires de l'Université de Lorraine, hors pôle M4, publiant dans les sous thématiques principales

Biomedical Engineering	Electrical and Electronic Engineering	Materials Chemistry	Mechanical Engineering	Mechanics of Materials
EMPP-LRGP (n=678)	EMPP-Green (n=646)	EMPP-LRGP (n=369)	EMPP-LRGP (n=342)	OTELo-Georessources (n=314)
EMPP-LERMAB (n=445)	EMPP-LEMTA (n=373)	CPM-LPCT (n=282)	EMPP-LEMTA (n=294)	AM2I-IECL (n=128)
AM2I-CRAN (n=265)	AM2I-CRAN (n=302)	CPM-CRM2 (n=251)	OTELo-Georessources (n=273)	EMPP-LEMTA (n=125)
EMPP-LEMTA (n=199)	EMPP-LRGP (n=213)	CPM-LCP-A2MC (n=224)	AM2I-LCFC (n=158)	OTELo-CRPG (n=95)
OTELo-Georessources (n=161)	CPM-LCPME (n=158)	EMPP-LEMTA (n=219)	EMPP-LERMAB (n=144)	AM2I-LCFC (n=85)

Evolution du nombre de publication dans les principales sous thématiques



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Electrical and Electronic Engineering										
Nombre de publications	177	197	162	209	141	146	149	153	132	93
Evolution annuelle en %		11 %	-18 %	29 %	-33 %	4 %	2 %	3 %	-14 %	-30 %
Materials Chemistry										
Nombre de publications	314	303	305	356	316	297	236	218	237	158
Evolution annuelle en %		-4 %	1 %	17 %	-11 %	-6 %	-21 %	-8 %	9 %	-33 %
Mechanical Engineering										
Nombre de publications	218	190	240	211	221	189	171	152	183	127
Evolution annuelle en %		-13 %	26 %	-12 %	5 %	-14 %	-10 %	-11 %	20 %	-31 %
Mechanics of Materials										
Nombre de publications	157	164	159	184	134	121	97	84	83	57
Evolution annuelle en %		4 %	-3 %	16 %	-27 %	-10 %	-20 %	-13 %	-1 %	-31 %

Comparaison avec des données nationales

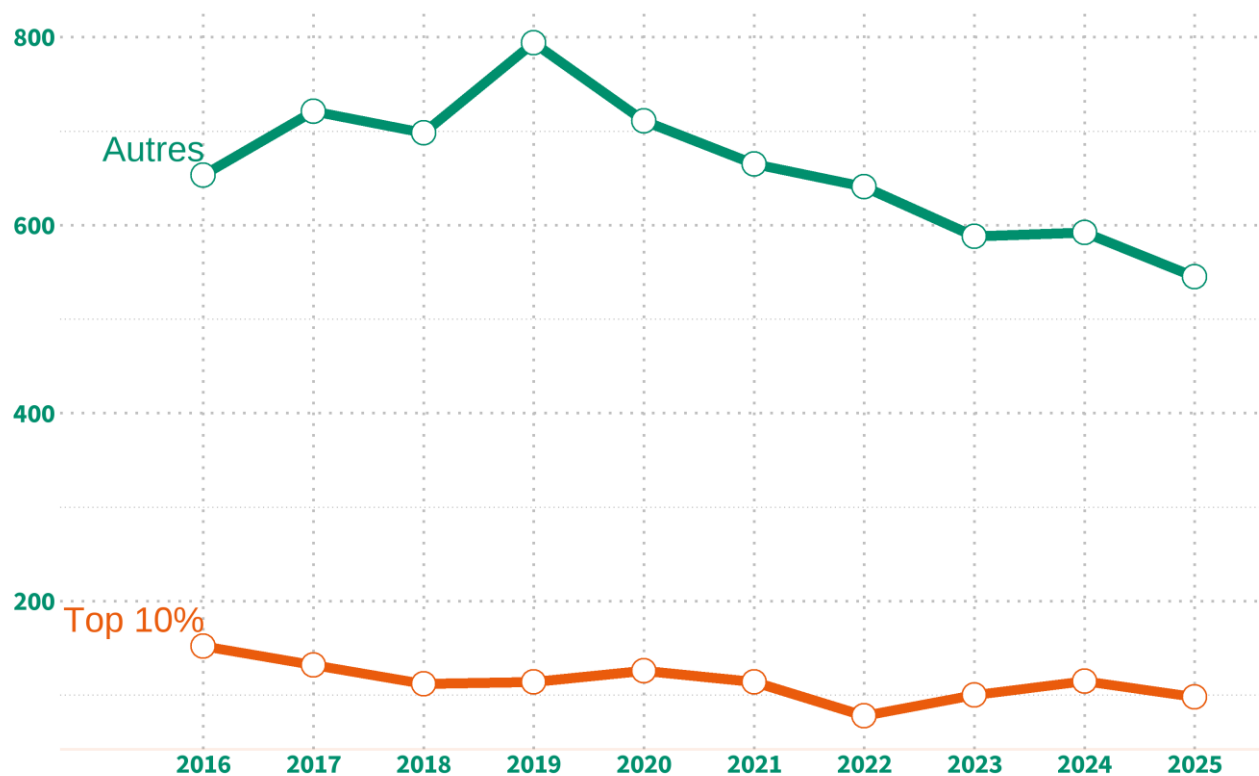
Pour les résultats comparatifs n'est conservé qu'une seule thématique par publication, la thématique principale attribuée par OpenAlex. C'est à dire celle ayant obtenu le score de confiance le plus important.

Sous thématique principale	Indicateur	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
M4											
Electrical and Electronic Engineering	Nombre de publications	68	62	65	81	57	59	47	49	60	46
Electrical and Electronic Engineering	Evolution annuelle en %		-9 %	5 %	25 %	-30 %	4 %	-20 %	4 %	22 %	-23 %
Materials Chemistry	Nombre de publications	165	162	173	201	181	164	148	113	118	94
Materials Chemistry	Evolution annuelle en %		-2 %	7 %	16 %	-10 %	-9 %	-10 %	-24 %	4 %	-20 %
Mechanical Engineering	Nombre de publications	108	103	117	98	107	114	85	93	98	89
Mechanical Engineering	Evolution annuelle en %		-5 %	14 %	-16 %	9 %	7 %	-25 %	9 %	5 %	-9 %
Mechanics of Materials	Nombre de publications	66	67	54	92	53	44	46	40	36	35
Mechanics of Materials	Evolution annuelle en %		2 %	-19 %	70 %	-42 %	-17 %	5 %	-13 %	-10 %	-3 %
UL											
Electrical and Electronic Engineering	Nombre de publications	197	198	196	251	212	219	185	215	195	170
Electrical and Electronic Engineering	Evolution annuelle en %		1 %	-1 %	22 %	-18 %	3 %	-18 %	14 %	-10 %	-15 %
Materials Chemistry	Nombre de publications	288	278	280	315	281	272	254	212	208	182
Materials Chemistry	Evolution annuelle en %		-4 %	1 %	11 %	-12 %	-3 %	-7 %	-20 %	-2 %	-14 %
Mechanical Engineering	Nombre de publications	197	203	226	193	204	198	183	171	208	163
Mechanical Engineering	Evolution annuelle en %		3 %	10 %	-17 %	5 %	-3 %	-8 %	-7 %	18 %	-28 %
Mechanics of Materials	Nombre de publications	128	118	111	142	110	93	76	99	87	63
Mechanics of Materials	Evolution annuelle en %		-8 %	-6 %	22 %	-29 %	-18 %	-22 %	23 %	-14 %	-38 %
France											
Mechanics of Materials	Nombre de publications	2106	1910	1864	1962	1640	1556	1486	1703	1567	1418
Mechanics of Materials	Evolution annuelle en %		-9 %	-2 %	5 %	-16 %	-5 %	-4 %	15 %	-8 %	-10 %
Electrical and Electronic Engineering	Nombre de publications	7536	7455	7372	7401	6173	6248	6212	6818	6313	6188
Electrical and Electronic Engineering	Evolution annuelle en %		-1 %	-1 %	0 %	-17 %	1 %	-1 %	10 %	-7 %	-2 %
Mechanical Engineering	Nombre de publications	2784	2663	2744	2717	2409	2497	2654	2650	2785	2574
Mechanical Engineering	Evolution annuelle en %		-4 %	3 %	-1 %	-11 %	4 %	6 %	0 %	5 %	-8 %

Sous thématique principale	Indicateur	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Materials Chemistry	Nombre de publications	5325	5000	5060	4865	4698	4550	4307	4657	4345	4282
Materials Chemistry	Evolution annuelle en %		-6 %	1 %	-4 %	-3 %	-3 %	-5 %	8 %	-7 %	-1 %

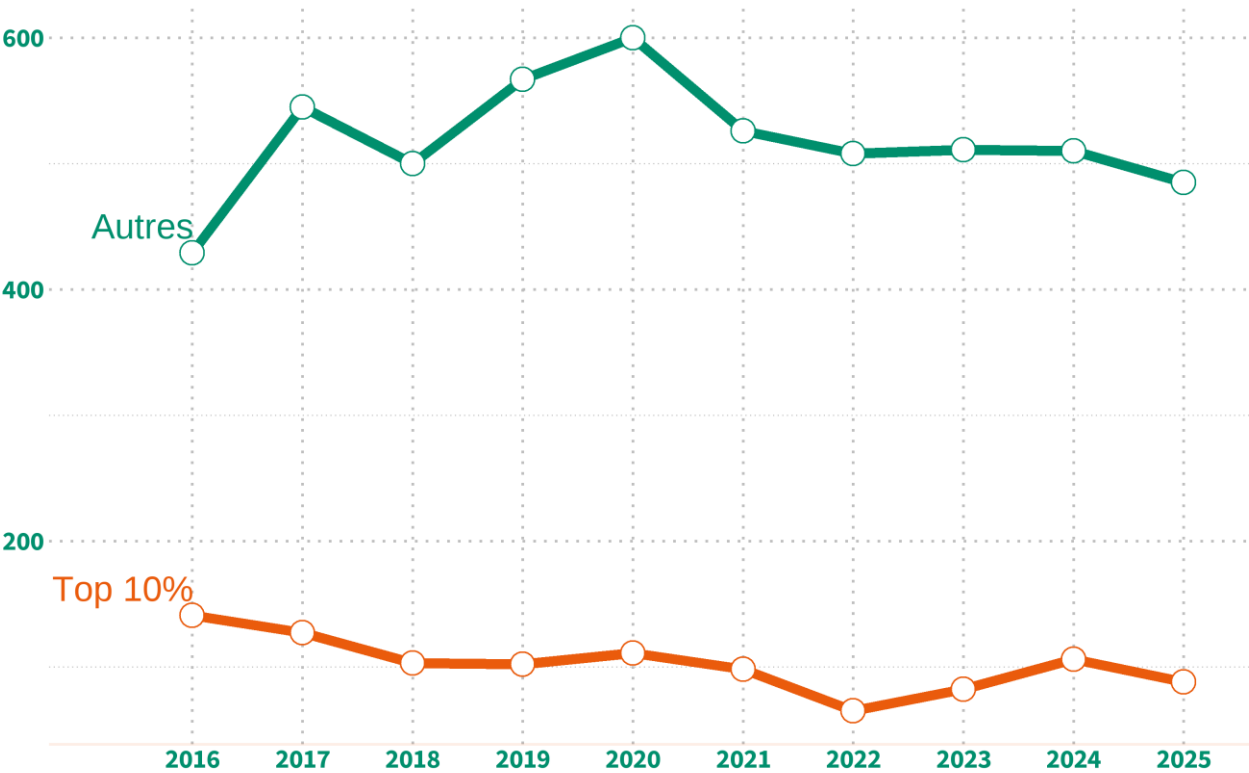
1.6 Evolution du nombre de publications dans les 10% les plus citées

Nombre de publications dans le top 10% les plus citées pour tout type de document



Top	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Top 1%	15 (2%)	10 (1%)	5 (1%)	6 (1%)	8 (1%)	5 (1%)	9 (1%)	9 (1%)	12 (2%)	11 (2%)	90 (1%)
Top 10%	152 (17%)	128 (14%)	110 (13%)	111 (11%)	123 (13%)	113 (13%)	76 (10%)	98 (14%)	112 (15%)	98 (15%)	1121 (14%)
Top 20%	275 (31%)	248 (27%)	218 (25%)	252 (25%)	260 (28%)	224 (27%)	180 (24%)	198 (27%)	189 (26%)	193 (29%)	2237 (27%)
Top 50%	524 (60%)	546 (60%)	493 (57%)	552 (55%)	571 (62%)	518 (62%)	410 (55%)	427 (59%)	403 (55%)	368 (55%)	4812 (58%)
Autre	877 (100%)	916 (100%)	861 (100%)	1003 (100%)	920 (100%)	842 (100%)	749 (100%)	724 (100%)	732 (100%)	670 (100%)	8294 (100%)

Nombre de publications dans le top 10% les plus citées pour les articles uniquement



Top	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Top 1%	14 (2%)	10 (2%)	4 (1%)	6 (1%)	8 (1%)	3 (0%)	6 (1%)	5 (1%)	12 (2%)	10 (2%)	78 (1%)
Top 10%	141 (25%)	123 (19%)	101 (17%)	99 (15%)	108 (16%)	98 (16%)	64 (11%)	81 (14%)	103 (17%)	88 (16%)	1006 (17%)
Top 20%	254 (45%)	234 (36%)	204 (35%)	233 (35%)	241 (35%)	196 (32%)	159 (28%)	176 (30%)	175 (29%)	179 (32%)	2051 (34%)
Top 50%	466 (83%)	510 (78%)	450 (76%)	511 (78%)	537 (77%)	466 (76%)	371 (65%)	392 (67%)	379 (63%)	347 (62%)	4429 (73%)
Autre	561 (100%)	653 (100%)	590 (100%)	658 (100%)	694 (100%)	617 (100%)	575 (100%)	581 (100%)	598 (100%)	563 (100%)	6090 (100%)

Publication dans le top 10% les plus citées à l'université de Lorraine pour tous les types de document

Top	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Top 1%	137 (1%)	109 (1%)	132 (1%)	116 (1%)	142 (1%)	134 (1%)	118 (2%)	147 (2%)	147 (2%)	153 (2%)
Top 10%	1305 (14%)	1087 (11%)	1098 (11%)	1064 (10%)	1198 (13%)	1152 (13%)	931 (12%)	1023 (13%)	1044 (14%)	1096 (16%)
Top 20%	2289 (25%)	1990 (20%)	2030 (21%)	2074 (20%)	2232 (24%)	2041 (22%)	1817 (23%)	1932 (24%)	1852 (24%)	1907 (29%)
Top 50%	4584 (50%)	5155 (52%)	5068 (51%)	5105 (49%)	4903 (52%)	4462 (49%)	3777 (49%)	3855 (48%)	3522 (46%)	3077 (46%)
Autre	9139 (100%)	9895 (100%)	9893 (100%)	10339 (100%)	9487 (100%)	9115 (100%)	7776 (100%)	7979 (100%)	7663 (100%)	6666 (100%)

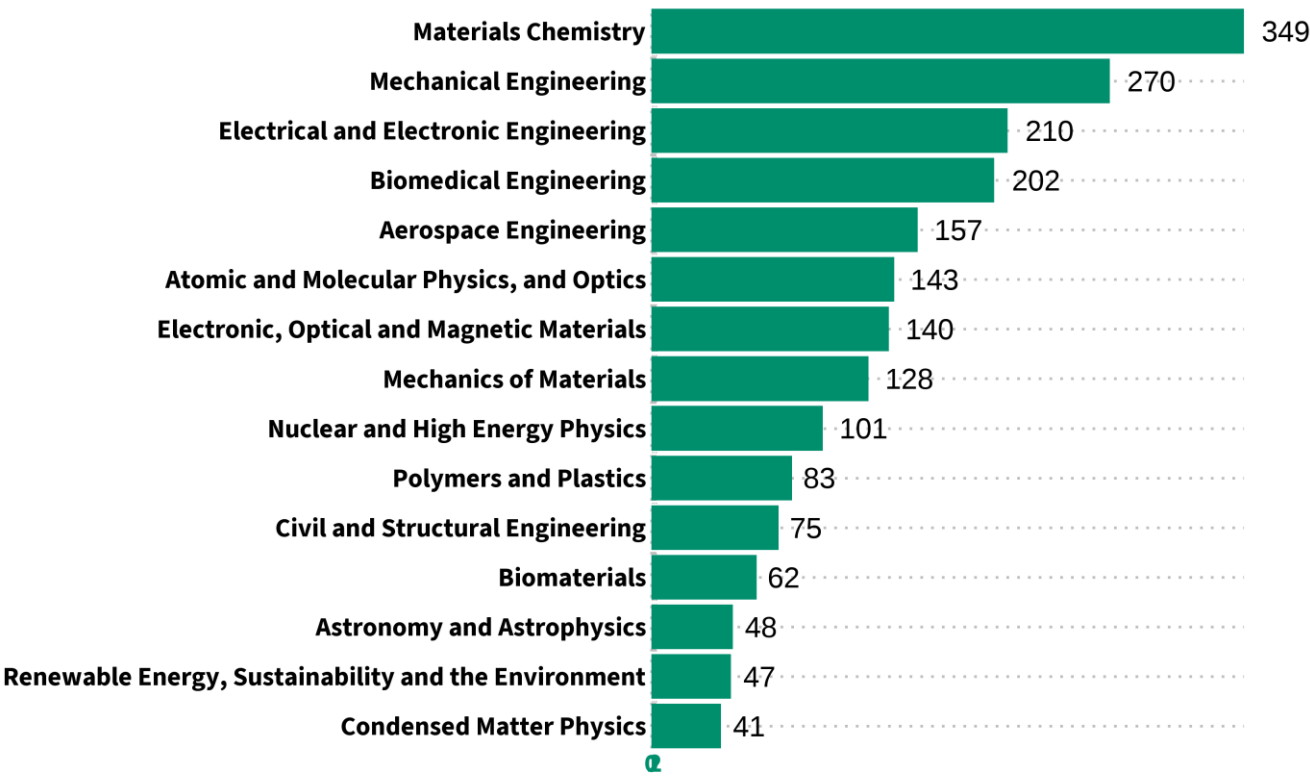
Publication dans le top 10% les plus citées à l'université de Lorraine pour les articles uniquement

Top	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Top 1%	103 (2%)	66 (1%)	95 (2%)	80 (2%)	94 (2%)	89 (2%)	81 (2%)	102 (2%)	115 (2%)	110 (2%)
Top 10%	1034 (24%)	836 (18%)	884 (19%)	837 (17%)	928 (18%)	864 (18%)	706 (15%)	766 (14%)	845 (16%)	865 (18%)
Top 20%	1795 (42%)	1537 (34%)	1611 (36%)	1647 (34%)	1782 (35%)	1584 (32%)	1430 (30%)	1495 (27%)	1504 (28%)	1575 (33%)
Top 50%	2893 (68%)	3049 (67%)	3069 (68%)	3231 (67%)	3459 (69%)	3255 (66%)	2921 (62%)	2982 (55%)	2851 (54%)	2510 (53%)
Autre	4252 (100%)	4563 (100%)	4536 (100%)	4816 (100%)	5039 (100%)	4937 (100%)	4726 (100%)	5460 (100%)	5295 (100%)	4746 (100%)

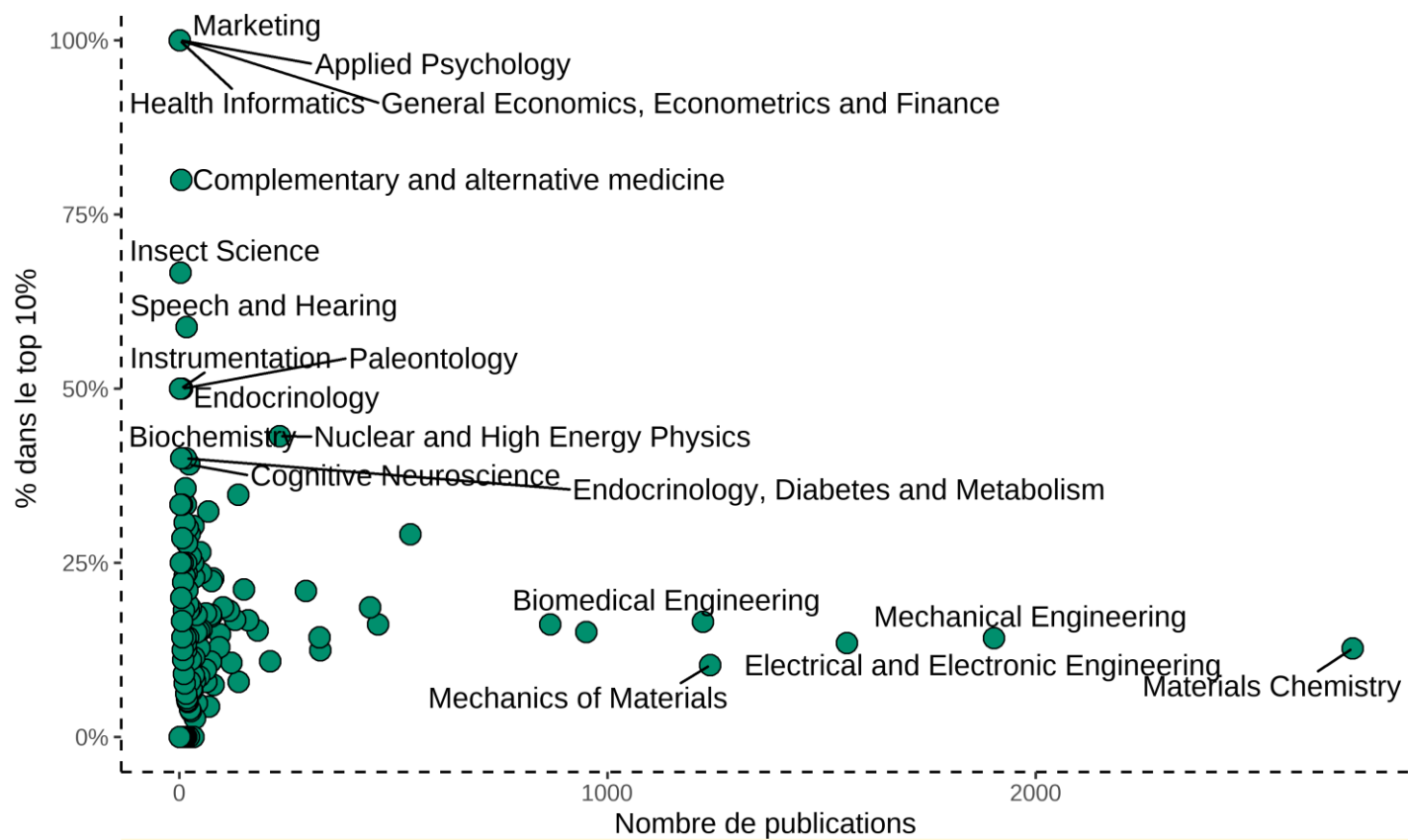
1.7 Nombre de documents dans le top 10% les plus citées par sous thématique

Pour le pôle M4

Principales sous thématiques OpenAlex des documents dans le top 10% les plus citées



Nombre et part de publications dans le top 10% les plus citées selon la sous thématique



Note de lecture : Entre 2016 et 2025, le pôle a publié 2740 publications dans la thématique Materials Chemistry dont 12% sont dans le top 10% les plus citées

Sous thématique	Top 1%	Top 10%	Top 20%	Top 50%	Autre
Aerospace Engineering	23 (4%)	157 (29%)	226 (42%)	357 (66%)	540 (100%)
Artificial Intelligence	1 (1%)	32 (21%)	52 (34%)	96 (64%)	151 (100%)
Astronomy and Astrophysics	1 (1%)	48 (35%)	85 (62%)	103 (75%)	138 (100%)
Atomic and Molecular Physics, and Optics	11 (1%)	143 (15%)	279 (29%)	608 (64%)	950 (100%)
Automotive Engineering	4 (2%)	27 (17%)	50 (31%)	102 (63%)	161 (100%)
Biomaterials	6 (2%)	62 (21%)	115 (39%)	232 (78%)	296 (100%)
Biomedical Engineering	17 (1%)	202 (17%)	385 (31%)	802 (66%)	1223 (100%)
Civil and Structural Engineering	6 (1%)	75 (16%)	162 (35%)	318 (69%)	464 (100%)
Computational Mechanics		23 (11%)	59 (28%)	123 (58%)	212 (100%)
Condensed Matter Physics	2 (1%)	41 (12%)	92 (28%)	225 (68%)	329 (100%)
Control and Systems Engineering	1 (1%)	11 (8%)	32 (23%)	77 (55%)	139 (100%)
Electrical and Electronic Engineering	16 (1%)	210 (13%)	432 (28%)	1003 (64%)	1559 (100%)
Electronic, Optical and Magnetic Materials	12 (1%)	140 (16%)	260 (30%)	612 (71%)	866 (100%)
Inorganic Chemistry	1 (1%)	28 (15%)	50 (27%)	124 (68%)	183 (100%)
Materials Chemistry	37 (1%)	349 (13%)	766 (28%)	1838 (67%)	2740 (100%)
Mechanical Engineering	23 (1%)	270 (14%)	548 (29%)	1144 (60%)	1902 (100%)
Mechanics of Materials	4 (0%)	128 (10%)	327 (26%)	753 (61%)	1240 (100%)
Nuclear and High Energy Physics	6 (3%)	101 (43%)	154 (66%)	176 (75%)	234 (100%)
Polymers and Plastics	10 (2%)	83 (19%)	149 (33%)	320 (72%)	446 (100%)
Renewable Energy, Sustainability and the Environment	2 (1%)	47 (14%)	84 (26%)	199 (61%)	328 (100%)

Comparaison avec des données nationales des publications dans le top 10% les plus citées

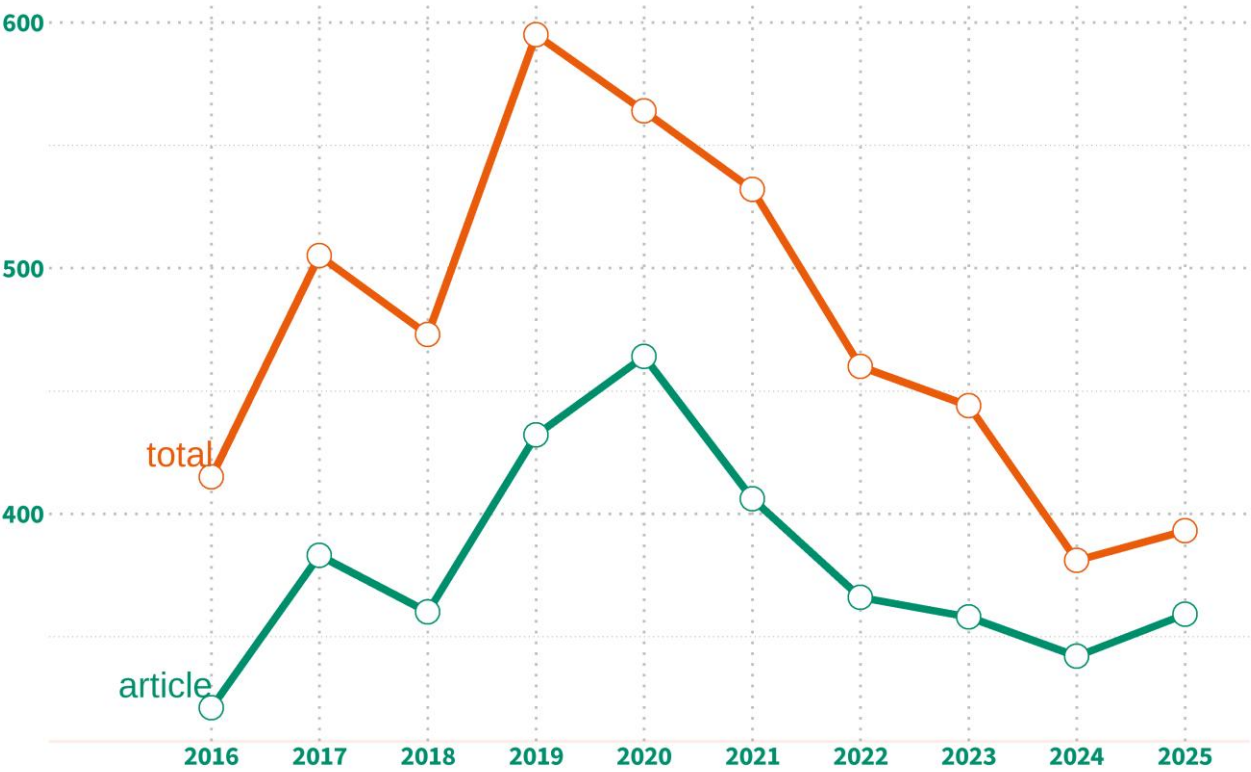
Pour les résultats comparatifs, n'est conservé qu'une seule thématique par publication, la thématique principale attribuée par OpenAlex. C'est à dire la thématique ayant obtenu le score d'appartenance le plus important.

Sous thématique principale	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
M4										
Electrical and Electronic Engineering	8 (12%)	2 (3%)	6 (9%)	8 (10%)	6 (11%)	10 (17%)	2 (4%)	3 (6%)	7 (12%)	3 (7%)
Materials Chemistry	22 (13%)	16 (10%)	10 (6%)	14 (7%)	18 (10%)	7 (4%)	7 (5%)	8 (7%)	16 (14%)	8 (9%)
Mechanical Engineering	21 (19%)	13 (13%)	16 (14%)	8 (8%)	14 (13%)	16 (14%)	8 (9%)	15 (16%)	14 (14%)	11 (12%)
Mechanics of Materials	7 (11%)	8 (12%)	8 (15%)	8 (9%)	7 (13%)	8 (18%)	6 (13%)	5 (12%)	5 (14%)	7 (20%)
Université de Lorraine										
Electrical and Electronic Engineering	28 (14%)	22 (11%)	18 (9%)	19 (8%)	15 (7%)	27 (12%)	16 (9%)	16 (7%)	21 (11%)	15 (9%)
Materials Chemistry	38 (13%)	23 (8%)	19 (7%)	21 (7%)	29 (10%)	14 (5%)	12 (5%)	16 (8%)	21 (10%)	13 (7%)
Mechanical Engineering	33 (17%)	30 (15%)	31 (14%)	19 (10%)	20 (10%)	27 (14%)	25 (14%)	24 (14%)	24 (12%)	20 (12%)
Mechanics of Materials	23 (18%)	14 (12%)	17 (15%)	15 (11%)	12 (11%)	14 (15%)	8 (11%)	8 (8%)	9 (10%)	11 (17%)
France										
Materials Chemistry	797 (15%)	603 (12%)	570 (11%)	503 (10%)	500 (11%)	400 (9%)	320 (7%)	337 (7%)	346 (8%)	451 (11%)
Mechanical Engineering	434 (16%)	348 (13%)	322 (12%)	326 (12%)	305 (13%)	265 (11%)	255 (10%)	243 (9%)	269 (10%)	262 (10%)
Electrical and Electronic Engineering	945 (13%)	729 (10%)	724 (10%)	712 (10%)	655 (11%)	614 (10%)	598 (10%)	566 (8%)	625 (10%)	689 (11%)
Mechanics of Materials	273 (13%)	237 (12%)	215 (12%)	195 (10%)	153 (9%)	163 (10%)	112 (8%)	150 (9%)	129 (8%)	125 (9%)

1.8 Publications avec une collaboration internationale

Pour le pôle M4

Nombre de publications avec une collaboration internationale par an



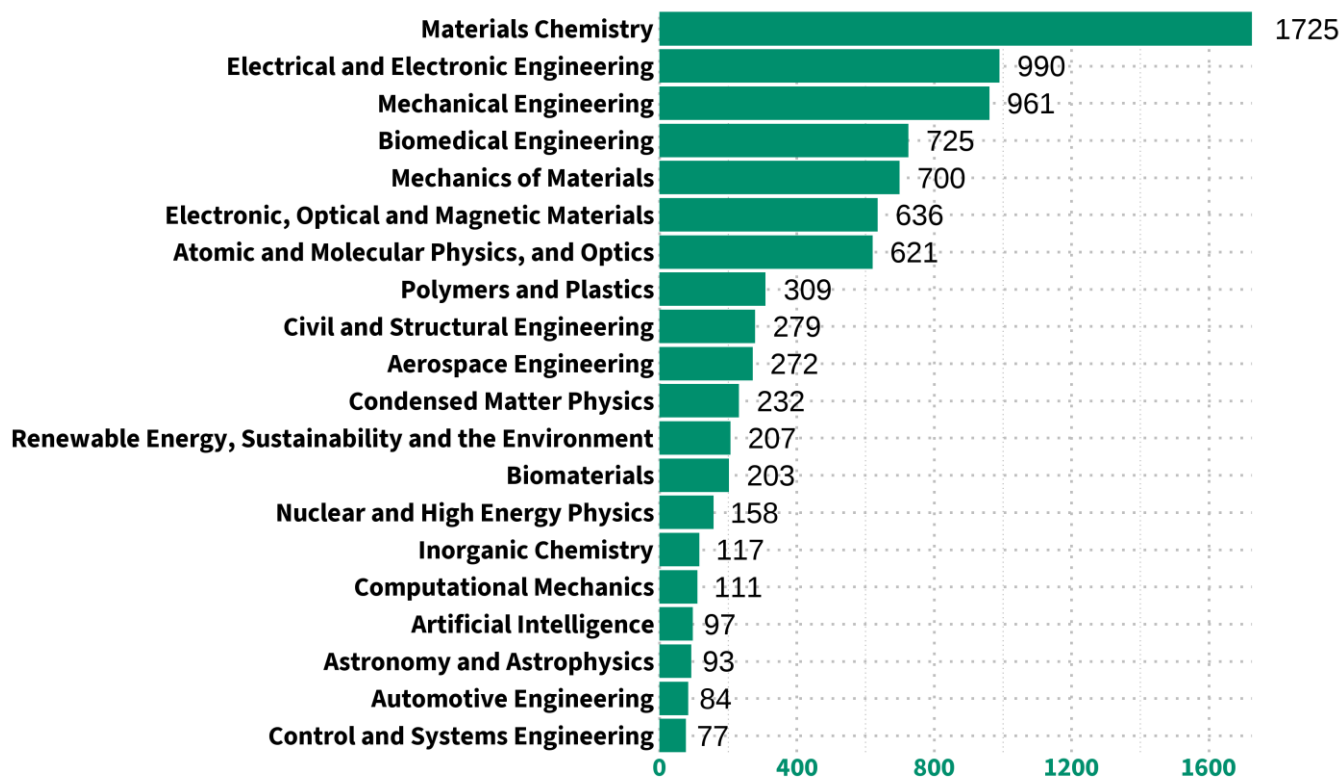
Publication internationale	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total											
Non	462 (53%)	411 (45%)	388 (45%)	408 (41%)	356 (39%)	310 (37%)	289 (39%)	280 (39%)	351 (48%)	277 (41%)	3,532 (43%)
Oui	415 (47%)	505 (55%)	473 (55%)	595 (59%)	564 (61%)	532 (63%)	460 (61%)	444 (61%)	381 (52%)	393 (59%)	4,762 (57%)
Total	877 (100%)	916 (100%)	861 (100%)	1,003 (100%)	920 (100%)	842 (100%)	749 (100%)	724 (100%)	732 (100%)	670 (100%)	8,294 (100%)
Article											
Non	240 (43%)	270 (41%)	230 (39%)	226 (34%)	230 (33%)	211 (34%)	209 (36%)	223 (38%)	256 (43%)	204 (36%)	2,299 (38%)
Oui	321 (57%)	383 (59%)	360 (61%)	432 (66%)	464 (67%)	406 (66%)	366 (64%)	358 (62%)	342 (57%)	359 (64%)	3,791 (62%)
Total	561 (100%)	653 (100%)	590 (100%)	658 (100%)	694 (100%)	617 (100%)	575 (100%)	581 (100%)	598 (100%)	563 (100%)	6,090 (100%)

Publication internationale	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total											
Non	6,398 (70%)	6,948 (70%)	6,754 (68%)	6,871 (66%)	5,910 (62%)	5,462 (60%)	4,419 (57%)	4,531 (57%)	4,408 (58%)	3,302 (50%)	55,003 (63%)
Oui	2,741 (30%)	2,947 (30%)	3,139 (32%)	3,468 (34%)	3,577 (38%)	3,653 (40%)	3,357 (43%)	3,448 (43%)	3,255 (42%)	3,364 (50%)	32,949 (37%)
Total	9,139 (100%)	9,895 (100%)	9,893 (100%)	10,339 (100%)	9,487 (100%)	9,115 (100%)	7,776 (100%)	7,979 (100%)	7,663 (100%)	6,666 (100%)	87,952 (100%)
Article											
Non	2,378 (56%)	2,554 (56%)	2,334 (51%)	2,386 (50%)	2,361 (47%)	2,410 (49%)	2,338 (49%)	2,922 (54%)	2,769 (52%)	2,170 (46%)	24,622 (51%)
Oui	1,874 (44%)	2,009 (44%)	2,202 (49%)	2,430 (50%)	2,678 (53%)	2,527 (51%)	2,388 (51%)	2,538 (46%)	2,526 (48%)	2,576 (54%)	23,748 (49%)
Total	4,252 (100%)	4,563 (100%)	4,536 (100%)	4,816 (100%)	5,039 (100%)	4,937 (100%)	4,726 (100%)	5,460 (100%)	5,295 (100%)	4,746 (100%)	48,370 (100%)

1.9 Publications avec une collaboration internationale par sous thématique

Pour le pôle M4

Nombre de publications par sous thématique parmi les publications avec une collaboration internationale



Sous thématique	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Aerospace Engineering	24 (6%)	24 (6%)	14 (4%)	40 (8%)	37 (8%)	23 (4%)	27 (6%)	27 (6%)	33 (10%)	23 (6%)	272 (6%)
Artificial Intelligence	14 (4%)	10 (2%)	5 (2%)	6 (2%)	15 (2%)	8 (2%)	12 (2%)	7 (2%)	7 (2%)	13 (4%)	97 (2%)
Astronomy and Astrophysics	10 (2%)	24 (6%)	8 (2%)	15 (2%)	6 (2%)	6 (2%)	6 (2%)	9 (2%)	6 (2%)	3 (0%)	93 (2%)
Atomic and Molecular Physics, and Optics	75 (20%)	90 (20%)	67 (16%)	64 (12%)	69 (14%)	57 (12%)	50 (12%)	66 (16%)	44 (12%)	39 (12%)	621 (14%)
Automotive Engineering	4 (2%)	7 (2%)	4 (0%)	3 (0%)	13 (2%)	16 (4%)	11 (2%)	10 (2%)	9 (2%)	7 (2%)	84 (2%)
Biomaterials	13 (4%)	16 (4%)	20 (4%)	28 (6%)	26 (6%)	28 (6%)	24 (6%)	17 (4%)	14 (4%)	17 (6%)	203 (4%)
Biomedical Engineering	50 (14%)	59 (12%)	74 (16%)	89 (16%)	99 (20%)	91 (18%)	84 (20%)	65 (16%)	58 (16%)	56 (16%)	725 (16%)
Civil and Structural Engineering	23 (6%)	38 (8%)	34 (8%)	45 (8%)	35 (6%)	32 (6%)	23 (6%)	12 (2%)	15 (4%)	22 (6%)	279 (6%)
Computational Mechanics	15 (4%)	5 (2%)	14 (4%)	13 (2%)	17 (4%)	11 (2%)	9 (2%)	11 (2%)	11 (4%)	5 (2%)	111 (2%)
Condensed Matter Physics	36 (10%)	42 (10%)	23 (6%)	21 (4%)	24 (4%)	11 (2%)	16 (4%)	24 (6%)	19 (6%)	16 (4%)	232 (6%)
Control and Systems Engineering	8 (2%)	16 (4%)	15 (4%)	14 (2%)	6 (2%)	5 (2%)	5 (2%)	2 (0%)	4 (2%)	2 (0%)	77 (2%)
Electrical and Electronic Engineering	99 (26%)	113 (24%)	91 (20%)	125 (22%)	90 (18%)	100 (20%)	98 (24%)	117 (28%)	86 (24%)	71 (22%)	990 (22%)
Electronic, Optical and Magnetic Materials	53 (14%)	58 (12%)	62 (14%)	82 (14%)	89 (18%)	61 (12%)	67 (16%)	76 (18%)	41 (12%)	47 (14%)	636 (14%)
Inorganic Chemistry	1 (0%)	10 (2%)	11 (2%)	7 (2%)	22 (4%)	16 (4%)	10 (2%)	7 (2%)	20 (6%)	13 (4%)	117 (2%)
Materials Chemistry	163 (42%)	169 (36%)	177 (40%)	234 (42%)	212 (42%)	204 (42%)	168 (40%)	138 (34%)	144 (40%)	116 (34%)	1725 (40%)
Mechanical Engineering	75 (20%)	84 (18%)	123 (28%)	121 (22%)	121 (24%)	112 (22%)	92 (22%)	62 (16%)	94 (26%)	77 (24%)	961 (22%)
Mechanics of Materials	70 (18%)	77 (16%)	93 (22%)	118 (22%)	85 (16%)	74 (16%)	65 (16%)	48 (12%)	35 (10%)	35 (10%)	700 (16%)
Nuclear and High Energy Physics	14 (4%)	31 (6%)	11 (2%)	24 (4%)	9 (2%)	12 (2%)	9 (2%)	17 (4%)	15 (4%)	16 (4%)	158 (4%)
Polymers and Plastics	14 (4%)	23 (4%)	28 (6%)	38 (6%)	45 (8%)	36 (8%)	30 (8%)	39 (10%)	30 (8%)	26 (8%)	309 (8%)
Renewable Energy, Sustainability and the Environment	21 (6%)	25 (6%)	15 (4%)	18 (4%)	27 (6%)	12 (2%)	26 (6%)	23 (6%)	22 (6%)	18 (6%)	207 (4%)

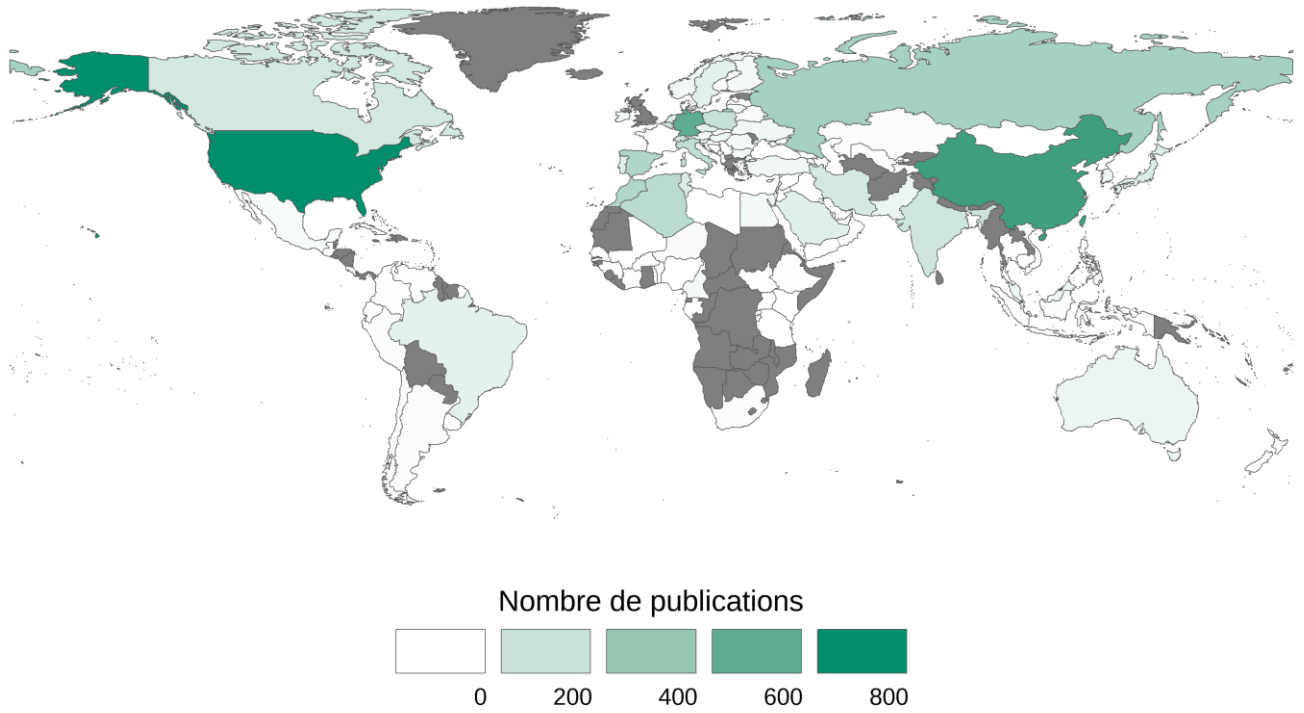
Comparaison dans les principales sous thématiques

Pour les résultats comparatifs, n'est conservé qu'une seule thématique par publication, la thématique principale attribuée par OpenAlex. C'est à dire la thématique ayant obtenu le score d'appartenance le plus important.

Sous thématique principale	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
M4										
Electrical and Electronic Engineering	34 (50%)	35 (56%)	29 (45%)	48 (59%)	36 (63%)	37 (63%)	36 (77%)	37 (76%)	36 (60%)	31 (67%)
Materials Chemistry	83 (50%)	92 (57%)	104 (60%)	127 (63%)	125 (69%)	114 (70%)	102 (69%)	75 (66%)	71 (60%)	69 (73%)
Mechanical Engineering	34 (31%)	45 (44%)	52 (44%)	57 (58%)	52 (49%)	65 (57%)	40 (47%)	42 (45%)	52 (53%)	51 (57%)
Mechanics of Materials	34 (52%)	30 (45%)	29 (54%)	52 (57%)	36 (68%)	26 (59%)	30 (65%)	21 (52%)	17 (47%)	15 (43%)
UL										
Electrical and Electronic Engineering	106 (54%)	106 (54%)	101 (52%)	140 (56%)	125 (59%)	151 (69%)	136 (74%)	122 (57%)	113 (58%)	109 (64%)
Materials Chemistry	138 (48%)	149 (54%)	169 (60%)	187 (59%)	189 (67%)	171 (63%)	166 (65%)	130 (61%)	118 (57%)	127 (70%)
Mechanical Engineering	64 (32%)	82 (40%)	90 (40%)	101 (52%)	104 (51%)	92 (46%)	85 (46%)	83 (49%)	108 (52%)	85 (52%)
Mechanics of Materials	62 (48%)	52 (44%)	50 (45%)	77 (54%)	62 (56%)	48 (52%)	45 (59%)	48 (48%)	38 (44%)	25 (40%)
France										
Materials Chemistry	2982 (56%)	2798 (56%)	2921 (58%)	2864 (59%)	3065 (65%)	2847 (63%)	2533 (59%)	2793 (60%)	2616 (60%)	2906 (68%)
Mechanical Engineering	1130 (41%)	1098 (41%)	1154 (42%)	1218 (45%)	1238 (51%)	1214 (49%)	1202 (45%)	1222 (46%)	1353 (49%)	1502 (58%)
Electrical and Electronic Engineering	3548 (47%)	3557 (48%)	3552 (48%)	3777 (51%)	3520 (57%)	3501 (56%)	3304 (53%)	3594 (53%)	3388 (54%)	3793 (61%)
Mechanics of Materials	907 (43%)	751 (39%)	772 (41%)	852 (43%)	809 (49%)	758 (49%)	649 (44%)	792 (47%)	709 (45%)	703 (50%)

1.10 Collaborations internationales par pays

Cartographie du nombre de publications par pays



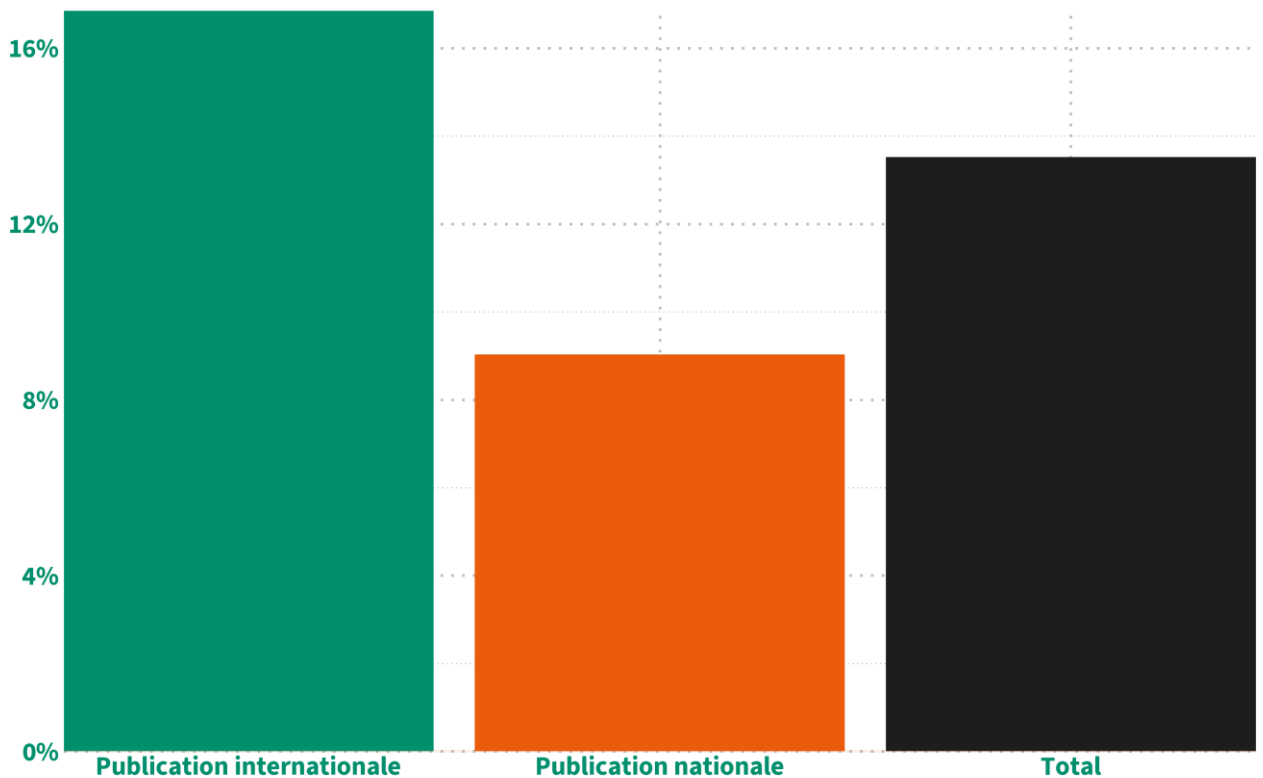
Pays	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Arménie	5 (0%)	7 (0%)	13 (2%)	15 (2%)	4 (0%)	4 (0%)	1 (0%)	4 (0%)	2 (0%)	2 (0%)
Autriche	2 (0%)	2 (0%)	3 (0%)	6 (0%)	4 (0%)	2 (0%)	6 (0%)	6 (0%)	7 (0%)	10 (2%)
Australie	9 (2%)	4 (0%)	9 (2%)	7 (0%)	2 (0%)	8 (0%)	9 (2%)	11 (2%)	7 (0%)	6 (0%)
Bangladesh	2 (0%)	1 (0%)	1 (0%)			3 (0%)	1 (0%)		1 (0%)	
Belgique	19 (2%)	24 (2%)	14 (2%)	32 (4%)	19 (2%)	24 (2%)	20 (2%)	24 (4%)	10 (2%)	15 (2%)
Bulgarie	10 (2%)	6 (0%)	3 (0%)	6 (0%)	4 (0%)	7 (0%)	5 (0%)	3 (0%)		1 (0%)
Brésil	20 (2%)	14 (2%)	8 (0%)	9 (0%)	8 (0%)	11 (2%)	9 (2%)	7 (0%)	7 (0%)	7 (2%)
Biélorussie	4 (0%)	9 (0%)	3 (0%)	5 (0%)	3 (0%)	2 (0%)	2 (0%)			
Canada	11 (2%)	16 (2%)	9 (2%)	18 (2%)	28 (4%)	20 (2%)	19 (2%)	10 (2%)	19 (2%)	16 (2%)
Suisse	8 (0%)	12 (2%)	13 (2%)	21 (2%)	23 (2%)	23 (2%)	19 (2%)	23 (4%)	15 (2%)	23 (4%)
Chili	2 (0%)		1 (0%)		2 (0%)	3 (0%)	1 (0%)		2 (0%)	4 (0%)
Cameroun	7 (0%)	2 (0%)	3 (0%)	1 (0%)		6 (0%)	8 (2%)	5 (0%)	4 (0%)	2 (0%)
Chine	41 (4%)	61 (6%)	73 (8%)	73 (8%)	87 (10%)	73 (8%)	76 (10%)	74 (10%)	69 (10%)	66 (10%)
Colombie	1 (0%)		1 (0%)	3 (0%)	1 (0%)		3 (0%)			3 (0%)
Costa Rica	1 (0%)	2 (0%)							1 (0%)	
Cuba	1 (0%)		1 (0%)		1 (0%)		4 (0%)		2 (0%)	
Chypre	1 (0%)						1 (0%)	2 (0%)	2 (0%)	1 (0%)
Tchéquie	5 (0%)	8 (0%)	6 (0%)	9 (0%)	12 (2%)	14 (2%)	9 (2%)	11 (2%)	11 (2%)	16 (2%)
Allemagne	56 (6%)	66 (8%)	50 (6%)	75 (8%)	52 (6%)	60 (8%)	57 (8%)	58 (8%)	53 (8%)	69 (10%)
Danemark	4 (0%)		1 (0%)	1 (0%)	3 (0%)		4 (0%)	1 (0%)	2 (0%)	
Algérie	30 (4%)	35 (4%)	36 (4%)	43 (4%)	29 (4%)	21 (2%)	17 (2%)	13 (2%)	16 (2%)	15 (2%)
Équateur	2 (0%)	2 (0%)								
Égypte	2 (0%)	3 (0%)	7 (0%)	3 (0%)	2 (0%)	7 (0%)	10 (2%)	9 (2%)	1 (0%)	2 (0%)
Espagne	15 (2%)	28 (4%)	18 (2%)	36 (4%)	47 (6%)	30 (4%)	26 (4%)	33 (4%)	30 (4%)	32 (4%)
Finlande	1 (0%)	2 (0%)	3 (0%)	10 (0%)	1 (0%)	1 (0%)	5 (0%)	4 (0%)	5 (0%)	14 (2%)
France	877 (100%)	916 (100%)	861 (100%)	1003 (100%)	920 (100%)	842 (100%)	749 (100%)	724 (100%)	732 (100%)	670 (100%)
Royaume-Uni	23 (2%)	32 (4%)	23 (2%)	33 (4%)	35 (4%)	43 (6%)	40 (6%)	32 (4%)	26 (4%)	23 (4%)
Grèce	6 (0%)	13 (2%)	6 (0%)	5 (0%)	6 (0%)	18 (2%)	25 (4%)	3 (0%)	2 (0%)	8 (2%)
R.A.S. chinoise de Hong Kong	1 (0%)		2 (0%)		1 (0%)	3 (0%)	6 (0%)	1 (0%)	3 (0%)	7 (2%)
Hongrie	5 (0%)	3 (0%)	3 (0%)	5 (0%)	3 (0%)	5 (0%)	5 (0%)	7 (0%)	12 (2%)	15 (2%)
Irlande	3 (0%)		2 (0%)	6 (0%)	7 (0%)	13 (2%)	7 (0%)	3 (0%)		2 (0%)
Israël	3 (0%)	4 (0%)		5 (0%)		1 (0%)		2 (0%)	1 (0%)	2 (0%)
Inde	11 (2%)	7 (0%)	13 (2%)	19 (2%)	20 (2%)	15 (2%)	19 (2%)	22 (4%)	26 (4%)	34 (6%)
Iran	3 (0%)	9 (0%)	10 (2%)	23 (2%)	32 (4%)	39 (4%)	15 (2%)	12 (2%)	9 (2%)	2 (0%)
Italie	22 (2%)	39 (4%)	14 (2%)	19 (2%)	21 (2%)	27 (4%)	22 (2%)	19 (2%)	17 (2%)	28 (4%)

Pays	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Japon	13 (2%)	13 (2%)	13 (2%)	7 (0%)	12 (2%)	8 (0%)	18 (2%)	19 (2%)	14 (2%)	15 (2%)
Corée du Sud	2 (0%)	8 (0%)	7 (0%)	5 (0%)	2 (0%)	12 (2%)	5 (0%)	6 (0%)	5 (0%)	10 (2%)
Liban	6 (0%)	10 (2%)	11 (2%)	9 (0%)	18 (2%)	8 (0%)	4 (0%)	5 (0%)	4 (0%)	3 (0%)
Lituanie	5 (0%)	5 (0%)	6 (0%)	6 (0%)	1 (0%)	2 (0%)	2 (0%)	2 (0%)	2 (0%)	2 (0%)
Luxembourg	17 (2%)	14 (2%)	11 (2%)	11 (2%)	7 (0%)	12 (2%)	10 (2%)	9 (2%)	4 (0%)	8 (2%)
Maroc	17 (2%)	22 (2%)	16 (2%)	34 (4%)	26 (2%)	34 (4%)	39 (6%)	28 (4%)	27 (4%)	42 (6%)
Monténégro	1 (0%)	1 (0%)	1 (0%)		1 (0%)			1 (0%)		
Mexique	4 (0%)	8 (0%)	4 (0%)	2 (0%)	3 (0%)	3 (0%)	2 (0%)	1 (0%)	3 (0%)	4 (0%)
Malaisie	3 (0%)	4 (0%)	3 (0%)	10 (0%)	6 (0%)	9 (2%)	7 (0%)	7 (0%)	5 (0%)	10 (2%)
Pays-Bas	8 (0%)	8 (0%)	9 (2%)	14 (2%)	16 (2%)	28 (4%)	15 (2%)	12 (2%)	5 (0%)	16 (2%)
Pérou	1 (0%)		4 (0%)	1 (0%)	1 (0%)	2 (0%)	1 (0%)	2 (0%)	2 (0%)	2 (0%)
Philippines	1 (0%)			1 (0%)				1 (0%)		1 (0%)
Pologne	6 (0%)	14 (2%)	17 (2%)	34 (4%)	31 (4%)	23 (2%)	23 (4%)	20 (2%)	18 (2%)	27 (4%)
Porto Rico	47 (6%)	33 (4%)	41 (4%)	31 (4%)	36 (4%)	38 (4%)	24 (4%)	9 (2%)	3 (0%)	
Portugal	11 (2%)	13 (2%)	6 (0%)	14 (2%)	9 (0%)	8 (0%)	8 (2%)	16 (2%)	7 (0%)	21 (4%)
Qatar	6 (0%)		1 (0%)	2 (0%)	4 (0%)	2 (0%)	1 (0%)			2 (0%)
Roumanie	5 (0%)	4 (0%)	7 (0%)	1 (0%)	5 (0%)	4 (0%)	2 (0%)	2 (0%)	5 (0%)	4 (0%)
Russie	27 (4%)	45 (4%)	29 (4%)	40 (4%)	52 (6%)	44 (6%)	24 (4%)	26 (4%)	29 (4%)	20 (2%)
Rwanda	1 (0%)		2 (0%)		1 (0%)	2 (0%)	1 (0%)			
Arabie saoudite	2 (0%)	9 (0%)	12 (2%)	11 (2%)	4 (0%)	8 (0%)	16 (2%)	22 (4%)	14 (2%)	14 (2%)
Suède	8 (0%)	7 (0%)	12 (2%)	17 (2%)	11 (2%)	3 (0%)	7 (0%)	13 (2%)	11 (2%)	12 (2%)
Singapour	1 (0%)	2 (0%)	4 (0%)	1 (0%)	5 (0%)	9 (2%)	5 (0%)	12 (2%)	3 (0%)	3 (0%)
Slovénie	2 (0%)	3 (0%)	6 (0%)	4 (0%)	11 (2%)	7 (0%)	8 (2%)	13 (2%)	5 (0%)	7 (2%)
Tunisie	13 (2%)	26 (2%)	18 (2%)	21 (2%)	12 (2%)	9 (2%)	9 (2%)	8 (2%)	8 (2%)	9 (2%)
Turquie	1 (0%)	1 (0%)	2 (0%)	8 (0%)	6 (0%)	4 (0%)	11 (2%)	9 (2%)	5 (0%)	9 (2%)
Ukraine	7 (0%)	2 (0%)	8 (0%)	7 (0%)	4 (0%)	5 (0%)	7 (0%)	6 (0%)	5 (0%)	6 (0%)
États-Unis	72 (8%)	70 (8%)	82 (10%)	90 (8%)	93 (10%)	116 (14%)	81 (10%)	78 (10%)	61 (8%)	58 (8%)
Venezuela	4 (0%)	2 (0%)		1 (0%)						
Afrique du Sud	1 (0%)			1 (0%)	2 (0%)	4 (0%)	3 (0%)	2 (0%)	8 (2%)	1 (0%)
	26 (2%)	30 (4%)	38 (4%)	57 (6%)	21 (2%)	39 (4%)	41 (6%)	33 (4%)	35 (4%)	45 (6%)
Émirats arabes unis		1 (0%)	1 (0%)	2 (0%)		2 (0%)		15 (2%)	5 (0%)	6 (0%)
Argentine		1 (0%)	3 (0%)	1 (0%)	3 (0%)	2 (0%)		1 (0%)	4 (0%)	3 (0%)
Côte d'Ivoire		2 (0%)	2 (0%)	2 (0%)		1 (0%)	1 (0%)	3 (0%)		3 (0%)
Géorgie		1 (0%)								1 (0%)
Guatemala		2 (0%)								
Corée du Nord		1 (0%)								
Kazakhstan		1 (0%)		3 (0%)	1 (0%)	5 (0%)	1 (0%)	4 (0%)	5 (0%)	2 (0%)
Norvège		1 (0%)	7 (0%)	7 (0%)	9 (0%)	17 (2%)	9 (2%)	3 (0%)		4 (0%)

Pays	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Slovaquie		1 (0%)		3 (0%)	3 (0%)	2 (0%)		2 (0%)		4 (0%)
Syrie		1 (0%)	1 (0%)	1 (0%)						2 (0%)
Togo		1 (0%)								
Thaïlande		2 (0%)		1 (0%)	1 (0%)					1 (0%)
Taïwan		5 (0%)	2 (0%)	1 (0%)	3 (0%)	1 (0%)	4 (0%)	4 (0%)	6 (0%)	4 (0%)
Ouzbékistan		1 (0%)								3 (0%)
Vietnam		2 (0%)		1 (0%)	4 (0%)	4 (0%)	3 (0%)	1 (0%)	2 (0%)	3 (0%)
Burkina Faso			1 (0%)	1 (0%)			2 (0%)	1 (0%)		
Bénin			1 (0%)	1 (0%)	2 (0%)	1 (0%)		2 (0%)		
Kenya			1 (0%)							
Libye			1 (0%)							
Nouvelle-Zélande			1 (0%)	1 (0%)						1 (0%)
Pakistan			2 (0%)	6 (0%)	2 (0%)	7 (0%)	14 (2%)	20 (2%)	11 (2%)	8 (2%)
Serbie			2 (0%)				1 (0%)		1 (0%)	2 (0%)
Ouganda			1 (0%)							
Albanie				3 (0%)	2 (0%)	1 (0%)				
Croatie				2 (0%)						1 (0%)
Indonésie				2 (0%)	3 (0%)	3 (0%)	3 (0%)			3 (0%)
Irak				2 (0%)		1 (0%)			2 (0%)	
Cambodge				2 (0%)					1 (0%)	
Lettonie				1 (0%)			2 (0%)		1 (0%)	
Soudan du Sud				1 (0%)						
Tadjikistan				1 (0%)					1 (0%)	1 (0%)
Gabon					1 (0%)	1 (0%)				
Koweït					2 (0%)	4 (0%)	1 (0%)			
Niger					12 (2%)	10 (2%)	2 (0%)	1 (0%)		
Territoires palestiniens					1 (0%)					3 (0%)
Uruguay					1 (0%)					
Burundi						1 (0%)		1 (0%)		
Éthiopie						1 (0%)		1 (0%)	1 (0%)	4 (0%)
Guinée						1 (0%)				
Sénégal						1 (0%)	2 (0%)			
Mali							2 (0%)	1 (0%)		
Yémen							2 (0%)			
Azerbaïdjan								1 (0%)		2 (0%)
Jordanie									1 (0%)	
Nigéria									1 (0%)	2 (0%)
Bosnie-Herzégovine										2 (0%)
Mongolie										2 (0%)
Oman										1 (0%)
Tanzanie										1 (0%)

1.11 Publications dans le top10% avec une collaboration internationale

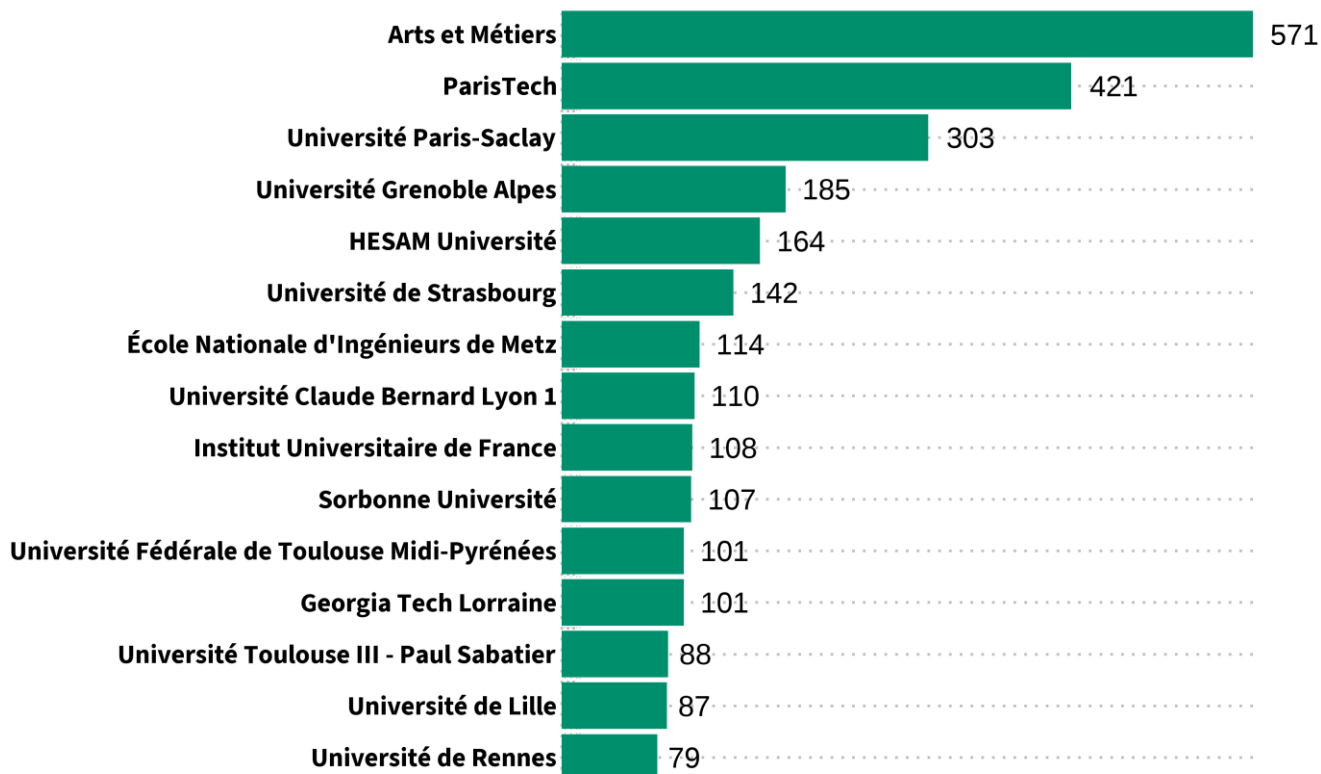
Part (en %) des publications dans le top 10% les plus citées par type de collaboration



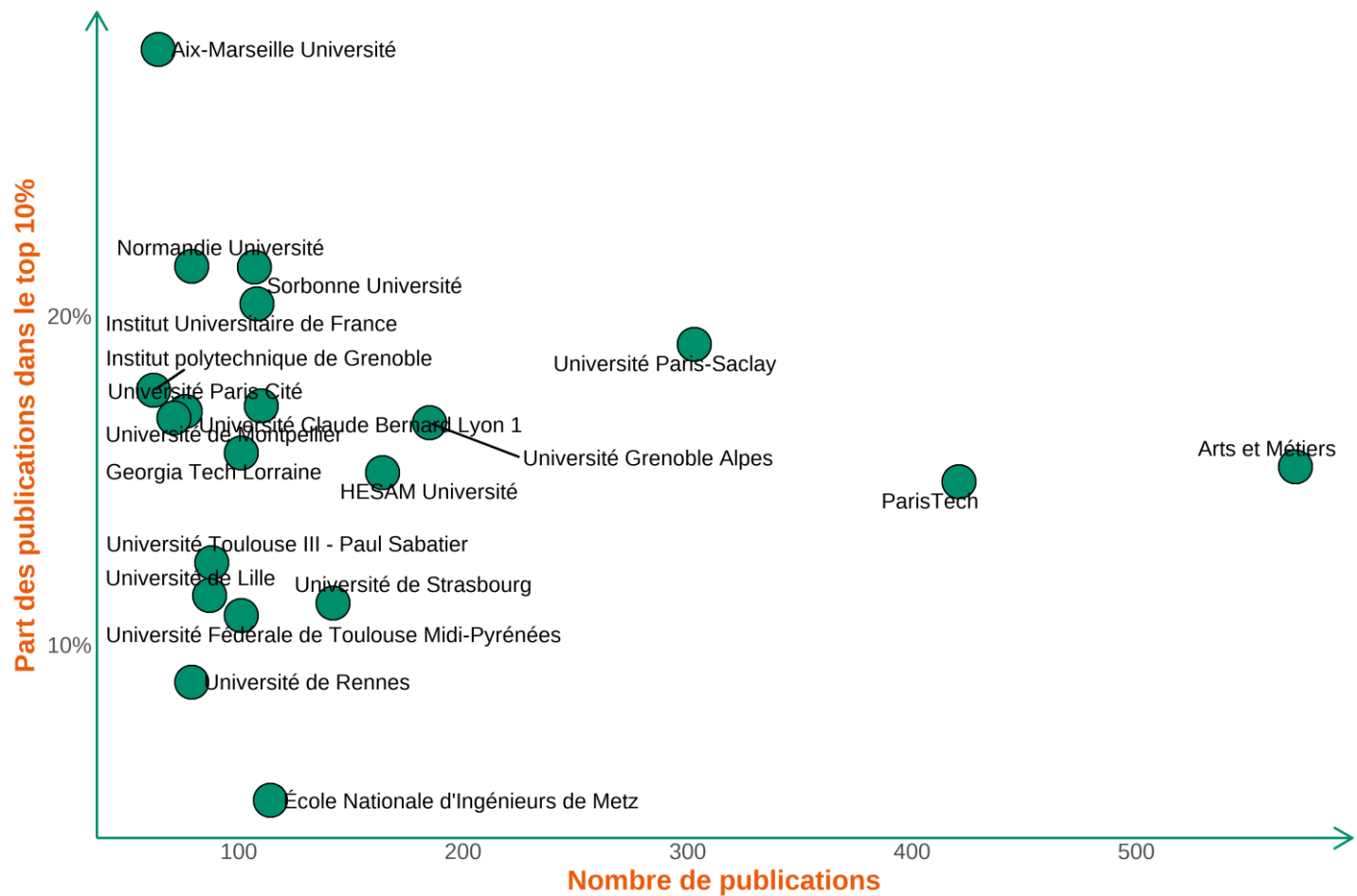
	Publication nationale	Publication internationale	Total
Publication hors du top 10%	2,727 (77%)	3,720 (78%)	6,447 (78%)
Publication dans le top 10%	319 (9%)	802 (17%)	1,121 (14%)
NA	486 (14%)	240 (5%)	726 (9%)
Total	3,532 (100%)	4,762 (100%)	8,294 (100%)

1.12 Collaborations par institution pour le pôle

Nombre de publications avec les principaux collaborateurs français

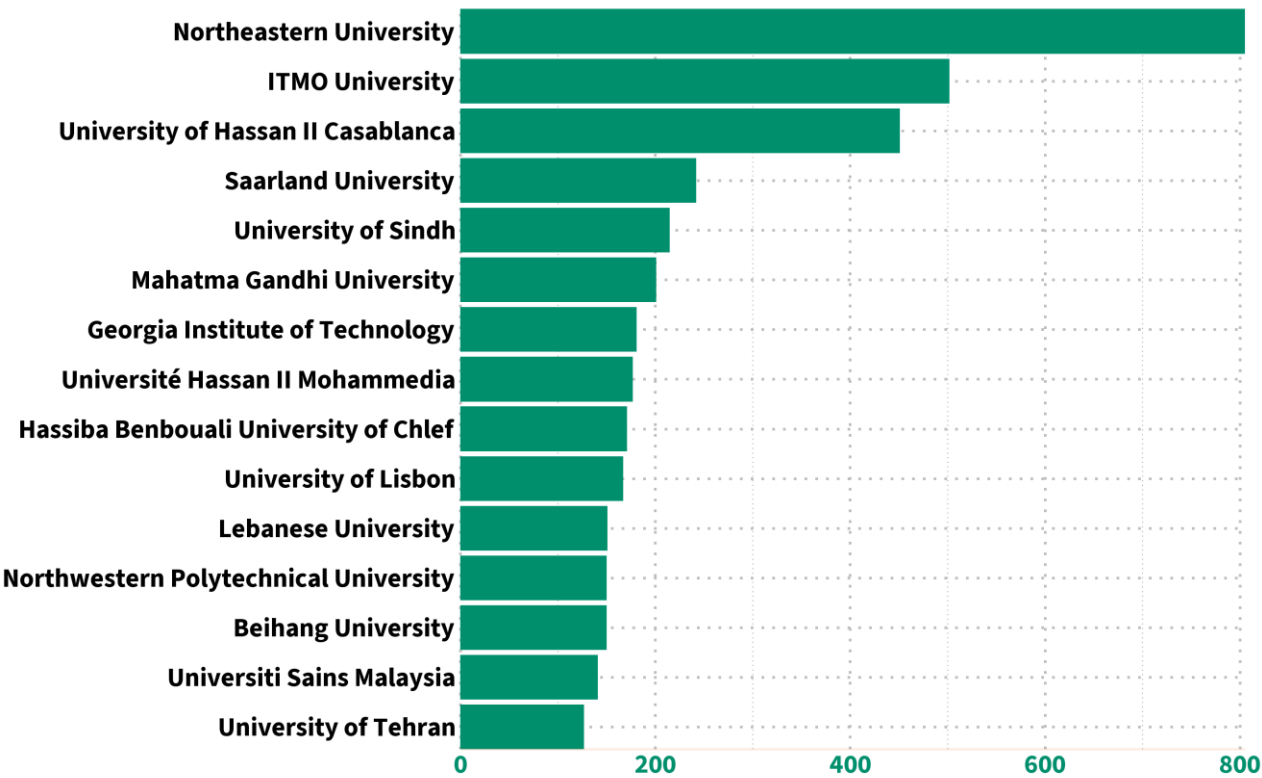


Nombre de publications et part dans le top 10% par institution française

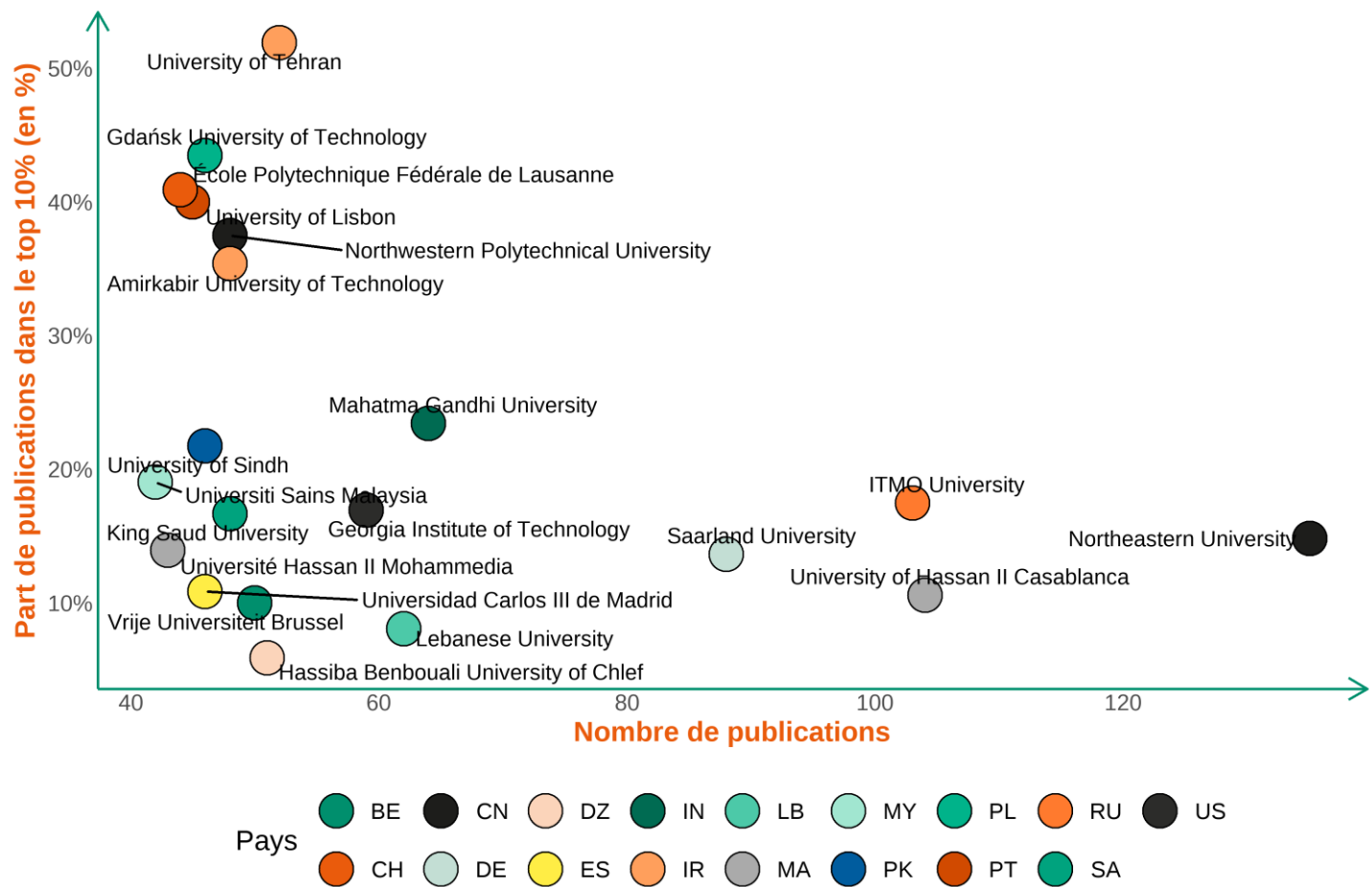


Institution	Pays	Nb publis	n_top10	% publis top 10%
Arts et Métiers	FR	571	88	16%
ParisTech	FR	421	63	14%
Université Paris-Saclay	FR	303	58	20%
Université Grenoble Alpes	FR	185	31	16%
HESAM Université	FR	164	25	16%
Université de Strasbourg	FR	142	16	12%
École Nationale d'Ingénieurs de Metz	FR	114	6	6%
Université Claude Bernard Lyon 1	FR	110	19	18%
Institut Universitaire de France	FR	108	22	20%
Sorbonne Université	FR	107	23	22%
Georgia Tech Lorraine	FR	101	16	16%
Université Fédérale de Toulouse Midi-Pyrénées	FR	101	11	10%
Université Toulouse III - Paul Sabatier	FR	88	11	12%
Université de Lille	FR	87	10	12%
Université de Rennes	FR	79	7	8%
Normandie Université	FR	79	17	22%
Université Paris Cité	FR	76	13	18%
Université de Montpellier	FR	71	12	16%
Aix-Marseille Université	FR	64	18	28%
Institut polytechnique de Grenoble	FR	62	11	18%
Université de Reims Champagne-Ardenne	FR	58	5	8%
École Centrale de Lille	FR	54	4	8%
Université de Rouen Normandie	FR	49	10	20%
Université Paris-Est Créteil	FR	48	8	16%
Institut National des Sciences Appliquées de Lyon	FR	47	6	12%
Université Paris-Sud	FR	47	11	24%
École Nationale Supérieure d'Ingénieurs de Caen	FR	47	11	24%
Université de Bordeaux	FR	47	12	26%
Université Paris Sciences et Lettres	FR	45	8	18%
Université de Caen Normandie	FR	45	12	26%
Université de Bourgogne	FR	42	7	16%
Université Bourgogne Franche-Comté	FR	41	10	24%
École Nationale Supérieure des Mines de Nancy	FR	39	2	6%
Institut National des Sciences Appliquées Rouen Normandie	FR	39	7	18%
Université de Poitiers	FR	39	11	28%
La Rochelle Université	FR	38	13	34%
Université de Bretagne Occidentale	FR	38	5	14%
Université Sorbonne Paris Nord	FR	34	4	12%
École Polytechnique	FR	33	9	28%
Supélec	FR	33	1	4%
Université de Technologie de Troyes	FR	32	8	24%
Institut National Polytechnique de Toulouse	FR	32	2	6%
Université de technologie de belfort-montbéliard	FR	30	12	40%
Nantes Université	FR	29	4	14%
École Nationale Supérieure de Chimie de Montpellier	FR	28	6	22%
Université Gustave Eiffel	FR	28	5	18%
Université Clermont Auvergne	FR	27	5	18%
Université Savoie Mont Blanc	FR	27	3	12%
Institut Polytechnique de Bordeaux	FR	27	6	22%
Université de Haute-Alsace	FR	25	2	8%

Nombre de publications par institution non française (Monde)



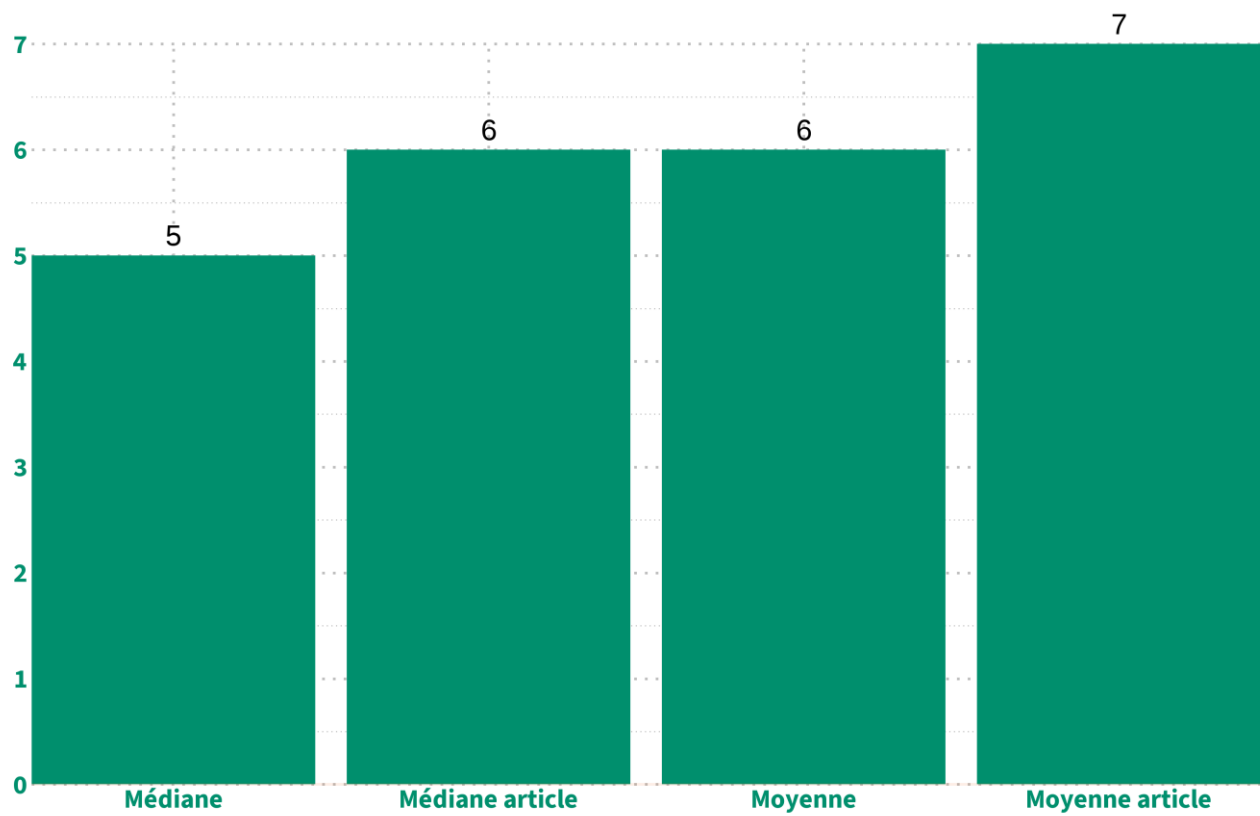
Nombre de publications et part dans le top 10% les plus citées par institution étrangère



Institution	Pays	Nb publis	Nb publis top10	% top10%
Northeastern University	CN	135	20	14%
University of Hassan II Casablanca	MA	104	11	10%
ITMO University	RU	103	18	18%
Saarland University	DE	88	12	14%
Mahatma Gandhi University	IN	64	15	24%
Lebanese University	LB	62	5	8%
Georgia Institute of Technology	US	59	10	16%
University of Tehran	IR	52	27	52%
Hassiba Benbouali University of Chlef	DZ	51	3	6%
Vrije Universiteit Brussel	BE	50	5	10%
Northwestern Polytechnical University	CN	48	18	38%
Amirkabir University of Technology	IR	48	17	36%
King Saud University	SA	48	8	16%
Gdańsk University of Technology	PL	46	20	44%
Universidad Carlos III de Madrid	ES	46	5	10%
University of Sindh	PK	46	10	22%
University of Lisbon	PT	45	18	40%
École Polytechnique Fédérale de Lausanne	CH	44	18	40%
Université Hassan II Mohammedia	MA	43	6	14%
Universiti Sains Malaysia	MY	42	8	20%
National and Kapodistrian University of Athens	GR	38	4	10%
Beihang University	CN	38	15	40%
Mohammed V University	MA	37	4	10%
University of Monastir	TN	35	7	20%
University of Chester	GB	35	3	8%
Shah Abdul Latif University	PK	35	7	20%
Cadi Ayyad University	MA	34	1	2%
Armenian State Pedagogical University after Khachatur Abovian	AM	33	0	0%
ETH Zurich	CH	32	10	32%
Karlsruhe Institute of Technology	DE	32	12	38%
Yanshan University	CN	32	3	10%
Novosibirsk State University	RU	32	1	4%
Kyushu University	JP	31	15	48%
Aristotle University of Thessaloniki	GR	30	3	10%
Nanyang Technological University	SG	30	8	26%
AGH University of Krakow	PL	30	3	10%
University of Miskolc	HU	29	3	10%
University of California San Diego	US	29	11	38%
Luleå University of Technology	SE	29	2	6%
Université Ibn-Tofail	MA	29	1	4%
Friedrich-Alexander-Universität Erlangen-Nürnberg	DE	28	5	18%
RWTH Aachen University	DE	28	12	42%
University of Carthage	TN	28	11	40%
Pennsylvania State University	US	28	11	40%
University of Milan	IT	28	2	8%
Vilnius University	LT	28	4	14%
Tehran University of Medical Sciences	IR	27	15	56%
University of Sciences and Technology Houari Boumediene	DZ	27	3	12%
Universidade de São Paulo	BR	27	1	4%
Tunis University	TN	27	7	26%

1.13 Nombre d’auteurs par document

Nombre d’auteurs par document



Moyenne	Moyenne article	Médiane	Médiane article
6.1	6.7	5	6

1.14 Principales sources des publications

Principales sources des publications et évolution du nombre de publications par source entre l'année 2016 et 2025



Revue	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Physical review. B./Physical review. B	16 (3%)	14 (2%)	12 (2%)	15 (3%)	16 (2%)	10 (2%)	9 (2%)	13 (3%)	10 (2%)	11 (2%)	126 (2%)
Journal of Alloys and Compounds	12 (2%)	12 (2%)	11 (2%)	7 (1%)	10 (2%)	8 (1%)	8 (2%)	11 (2%)	17 (3%)	12 (2%)	108 (2%)
Materials	0 (0%)	2 (0%)	30 (5%)	15 (3%)	17 (3%)	11 (2%)	12 (2%)	6 (1%)	5 (1%)	3 (1%)	101 (2%)
Acta Materialia	6 (1%)	5 (1%)	9 (2%)	7 (1%)	12 (2%)	8 (1%)	9 (2%)	7 (1%)	15 (3%)	4 (1%)	82 (1%)
Applied Physics Letters	8 (1%)	8 (1%)	6 (1%)	12 (2%)	9 (1%)	9 (2%)	7 (1%)	12 (2%)	5 (1%)	6 (1%)	82 (1%)
Journal of Applied Physics	7 (1%)	9 (2%)	8 (1%)	7 (1%)	9 (1%)	6 (1%)	7 (1%)	4 (1%)	6 (1%)	2 (0%)	65 (1%)
AIP conference proceedings	16 (3%)	12 (2%)	6 (1%)	5 (1%)	11 (2%)	1 (0%)	1 (0%)	6 (1%)	0 (0%)	2 (0%)	60 (1%)
Materials Characterization	2 (0%)	4 (1%)	4 (1%)	4 (1%)	5 (1%)	6 (1%)	8 (2%)	3 (1%)	8 (2%)	15 (3%)	59 (1%)
Metals	1 (0%)	4 (1%)	8 (1%)	8 (1%)	17 (3%)	5 (1%)	5 (1%)	5 (1%)	4 (1%)	2 (0%)	59 (1%)
Physical Review Applied	0 (0%)	6 (1%)	6 (1%)	12 (2%)	10 (2%)	4 (1%)	4 (1%)	8 (2%)	2 (0%)	5 (1%)	57 (1%)
Materials Science and Engineering A	4 (1%)	9 (2%)	3 (1%)	3 (1%)	7 (1%)	11 (2%)	4 (1%)	2 (0%)	3 (1%)	3 (1%)	49 (1%)
International Journal of Solids and Structures	6 (1%)	3 (1%)	4 (1%)	7 (1%)	4 (1%)	6 (1%)	6 (1%)	3 (1%)	4 (1%)	3 (1%)	46 (1%)
Carbon	5 (1%)	4 (1%)	5 (1%)	3 (1%)	7 (1%)	4 (1%)	2 (0%)	4 (1%)	4 (1%)	6 (1%)	44 (1%)
Composite Structures	6 (1%)	4 (1%)	8 (1%)	3 (1%)	4 (1%)	5 (1%)	2 (0%)	3 (1%)	6 (1%)	3 (1%)	44 (1%)
Applied Surface Science	3 (1%)	5 (1%)	4 (1%)	5 (1%)	7 (1%)	6 (1%)	1 (0%)	1 (0%)	5 (1%)	5 (1%)	42 (1%)
Physics of Plasmas	3 (1%)	3 (1%)	4 (1%)	5 (1%)	4 (1%)	1 (0%)	2 (0%)	8 (2%)	7 (1%)	5 (1%)	42 (1%)
Scripta Materialia	4 (1%)	2 (0%)	6 (1%)	5 (1%)	6 (1%)	6 (1%)	3 (1%)	4 (1%)	4 (1%)	2 (0%)	42 (1%)
ACS Applied Materials & Interfaces	0 (0%)	3 (1%)	6 (1%)	2 (0%)	5 (1%)	6 (1%)	1 (0%)	7 (1%)	5 (1%)	5 (1%)	40 (1%)
Scientific Reports	5 (1%)	7 (1%)	3 (1%)	4 (1%)	1 (0%)	3 (1%)	5 (1%)	1 (0%)	5 (1%)	5 (1%)	39 (1%)
International Journal of Hydrogen Energy	5 (1%)	6 (1%)	3 (1%)	3 (1%)	4 (1%)	1 (0%)	5 (1%)	2 (0%)	3 (1%)	6 (1%)	38 (1%)
Nuclear Fusion	3 (1%)	7 (1%)	2 (0%)	7 (1%)	2 (0%)	6 (1%)	2 (0%)	2 (0%)	4 (1%)	3 (1%)	38 (1%)
The Journal of Physical Chemistry C	1 (0%)	8 (1%)	4 (1%)	3 (1%)	6 (1%)	3 (1%)	1 (0%)	5 (1%)	6 (1%)	1 (0%)	38 (1%)
International Journal of Plasticity	5 (1%)	3 (1%)	7 (1%)	6 (1%)	2 (0%)	3 (1%)	0 (0%)	4 (1%)	2 (0%)	4 (1%)	36 (1%)
Journal of Magnetism and Magnetic Materials	3 (1%)	6 (1%)	3 (1%)	5 (1%)	5 (1%)	3 (1%)	6 (1%)	1 (0%)	0 (0%)	0 (0%)	32 (1%)
Surface and Coatings Technology	4 (1%)	3 (1%)	4 (1%)	3 (1%)	5 (1%)	2 (0%)	3 (1%)	2 (0%)	2 (0%)	4 (1%)	32 (1%)
Journal of Physics Conference Series	5 (1%)	11 (2%)	3 (1%)	1 (0%)	2 (0%)	5 (1%)	0 (0%)	0 (0%)	2 (0%)	2 (0%)	31 (1%)
Materials & Design	3 (1%)	5 (1%)	3 (1%)	4 (1%)	1 (0%)	4 (1%)	3 (1%)	0 (0%)	3 (1%)	4 (1%)	30 (1%)
Mechanics of Materials	2 (0%)	2 (0%)	3 (1%)	4 (1%)	4 (1%)	5 (1%)	2 (0%)	2 (0%)	4 (1%)	2 (0%)	30 (1%)
Nature Communications	3 (1%)	1 (0%)	1 (0%)	0 (0%)	3 (0%)	2 (0%)	2 (0%)	3 (1%)	4 (1%)	11 (2%)	30 (1%)
Journal of the Mechanics and Physics of Solids	1 (0%)	3 (1%)	4 (1%)	1 (0%)	5 (1%)	4 (1%)	3 (1%)	0 (0%)	4 (1%)	4 (1%)	29 (1%)

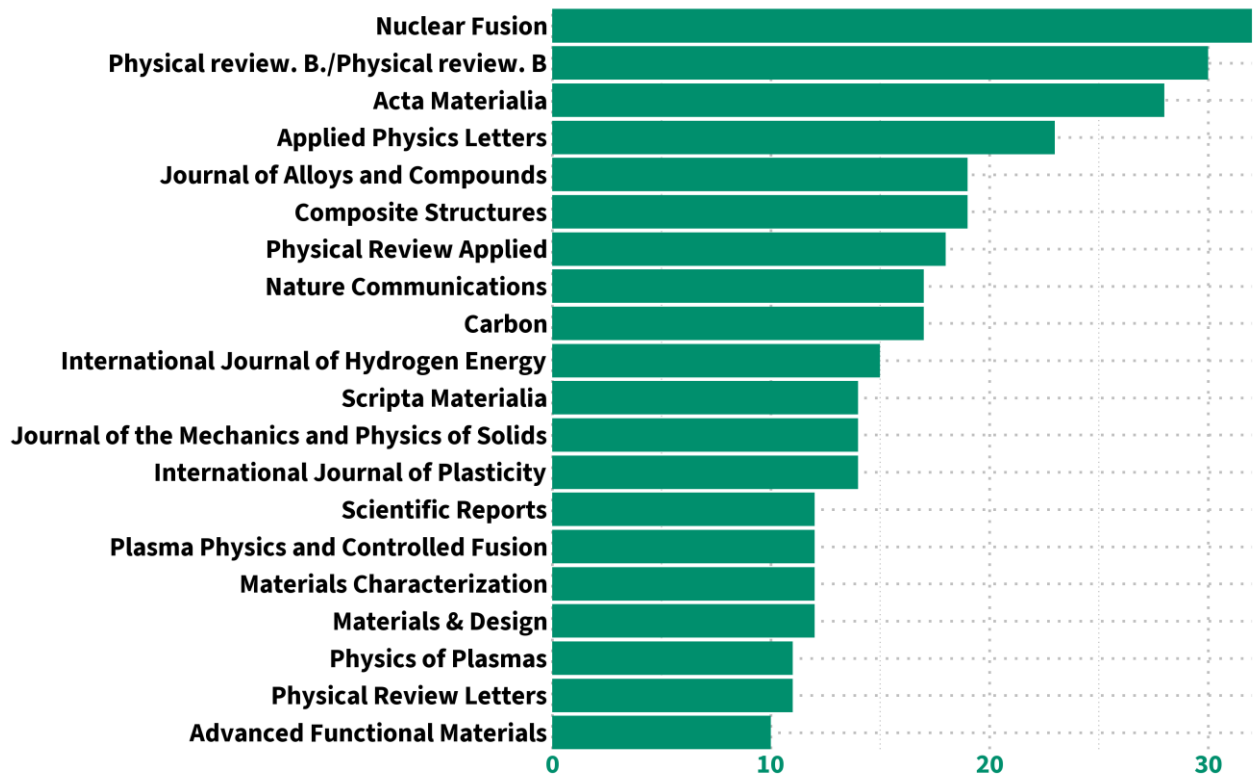
Revue	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Materials Today Proceedings	0 (0%)	0 (0%)	3 (1%)	4 (1%)	6 (1%)	3 (1%)	10 (2%)	1 (0%)	2 (0%)	0 (0%)	29 (1%)
RSC Advances	12 (2%)	3 (1%)	1 (0%)	1 (0%)	3 (0%)	1 (0%)	3 (1%)	4 (1%)	0 (0%)	1 (0%)	29 (1%)
Metallurgical and Materials Transactions A	4 (1%)	2 (0%)	9 (2%)	2 (0%)	3 (0%)	4 (1%)	0 (0%)	1 (0%)	2 (0%)	1 (0%)	28 (1%)
The International Journal of Advanced Manufacturing Technology	1 (0%)	4 (1%)	3 (1%)	2 (0%)	1 (0%)	3 (1%)	5 (1%)	4 (1%)	3 (1%)	2 (0%)	28 (1%)
Materialia	0 (0%)	0 (0%)	0 (0%)	7 (1%)	3 (0%)	3 (1%)	6 (1%)	2 (0%)	3 (1%)	3 (1%)	27 (0%)
Physical Review Materials	0 (0%)	1 (0%)	2 (0%)	4 (1%)	4 (1%)	2 (0%)	1 (0%)	6 (1%)	2 (0%)	5 (1%)	27 (0%)
International Journal of Mechanical Sciences	2 (0%)	3 (1%)	1 (0%)	5 (1%)	3 (0%)	2 (0%)	3 (1%)	2 (0%)	1 (0%)	4 (1%)	26 (0%)
Journal of Physics D Applied Physics	5 (1%)	6 (1%)	2 (0%)	3 (1%)	3 (0%)	1 (0%)	1 (0%)	0 (0%)	2 (0%)	3 (1%)	26 (0%)
Plasma Physics and Controlled Fusion	3 (1%)	5 (1%)	1 (0%)	4 (1%)	2 (0%)	3 (1%)	1 (0%)	3 (1%)	2 (0%)	2 (0%)	26 (0%)
Crystals	0 (0%)	4 (1%)	1 (0%)	1 (0%)	2 (0%)	7 (1%)	4 (1%)	3 (1%)	3 (1%)	0 (0%)	25 (0%)
Materials Chemistry and Physics	1 (0%)	3 (1%)	5 (1%)	2 (0%)	4 (1%)	1 (0%)	4 (1%)	1 (0%)	2 (0%)	1 (0%)	24 (0%)
Optics Letters	4 (1%)	4 (1%)	1 (0%)	7 (1%)	1 (0%)	0 (0%)	2 (0%)	4 (1%)	0 (0%)	1 (0%)	24 (0%)
Oxidation of Metals	6 (1%)	7 (1%)	3 (1%)	1 (0%)	2 (0%)	4 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	23 (0%)
Advanced Functional Materials	0 (0%)	1 (0%)	2 (0%)	2 (0%)	2 (0%)	6 (1%)	2 (0%)	2 (0%)	2 (0%)	3 (1%)	22 (0%)
Corrosion Science	3 (1%)	1 (0%)	2 (0%)	1 (0%)	4 (1%)	4 (1%)	2 (0%)	3 (1%)	0 (0%)	1 (0%)	21 (0%)
ECS Meeting Abstracts	8 (1%)	1 (0%)	4 (1%)	0 (0%)	2 (0%)	0 (0%)	3 (1%)	1 (0%)	1 (0%)	1 (0%)	21 (0%)
Industrial Crops and Products	2 (0%)	0 (0%)	4 (1%)	3 (1%)	3 (0%)	2 (0%)	2 (0%)	4 (1%)	1 (0%)	0 (0%)	21 (0%)
Nanomaterials	0 (0%)	0 (0%)	0 (0%)	2 (0%)	6 (1%)	5 (1%)	4 (1%)	2 (0%)	1 (0%)	1 (0%)	21 (0%)
Physical Review Letters	4 (1%)	4 (1%)	1 (0%)	3 (1%)	0 (0%)	1 (0%)	2 (0%)	5 (1%)	1 (0%)	0 (0%)	21 (0%)
Polymers	1 (0%)	1 (0%)	0 (0%)	0 (0%)	6 (1%)	6 (1%)	2 (0%)	2 (0%)	1 (0%)	2 (0%)	21 (0%)
Advanced Materials	1 (0%)	3 (1%)	3 (1%)	1 (0%)	3 (0%)	3 (1%)	1 (0%)	1 (0%)	2 (0%)	2 (0%)	20 (0%)
Inorganic Chemistry	2 (0%)	5 (1%)	2 (0%)	4 (1%)	1 (0%)	2 (0%)	2 (0%)	1 (0%)	1 (0%)	0 (0%)	20 (0%)
MATEC Web of Conferences	4 (1%)	0 (0%)	0 (0%)	1 (0%)	14 (2%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	20 (0%)
Energies	0 (0%)	1 (0%)	1 (0%)	0 (0%)	3 (0%)	4 (1%)	5 (1%)	4 (1%)	0 (0%)	1 (0%)	19 (0%)
Journal of the mechanical behavior of biomedical materials/Journal of mechanical behavior of biomedical materials	0 (0%)	2 (0%)	2 (0%)	0 (0%)	2 (0%)	4 (1%)	2 (0%)	2 (0%)	3 (1%)	2 (0%)	19 (0%)
Materials Today Communications	0 (0%)	0 (0%)	0 (0%)	2 (0%)	2 (0%)	0 (0%)	2 (0%)	4 (1%)	6 (1%)	3 (1%)	19 (0%)
Procedia CIRP	0 (0%)	6 (1%)	1 (0%)	1 (0%)	0 (0%)	1 (0%)	7 (1%)	0 (0%)	0 (0%)	3 (1%)	19 (0%)
Advanced Engineering Materials	0 (0%)	8 (1%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)	3 (1%)	3 (1%)	18 (0%)

Revue	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Energy Procedia	1 (0%)	10 (2%)	1 (0%)	6 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	18 (0%)
Journal of Materials Research and Technology	0 (0%)	0 (0%)	0 (0%)	2 (0%)	1 (0%)	2 (0%)	1 (0%)	1 (0%)	7 (1%)	4 (1%)	18 (0%)
Journal of Materials Science	2 (0%)	2 (0%)	2 (0%)	3 (1%)	1 (0%)	2 (0%)	3 (1%)	0 (0%)	3 (1%)	0 (0%)	18 (0%)
Computer Methods in Biomechanics & Biomedical Engineering	0 (0%)	2 (0%)	0 (0%)	5 (1%)	10 (2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	17 (0%)
High Temperature Corrosion of Materials	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	15 (3%)	1 (0%)	17 (0%)
Journal of Applied Polymer Science	3 (1%)	0 (0%)	0 (0%)	2 (0%)	2 (0%)	4 (1%)	3 (1%)	1 (0%)	1 (0%)	1 (0%)	17 (0%)
Journal of Materials Processing Technology	2 (0%)	2 (0%)	2 (0%)	3 (1%)	4 (1%)	1 (0%)	1 (0%)	2 (0%)	0 (0%)	0 (0%)	17 (0%)
Sensors	1 (0%)	1 (0%)	0 (0%)	2 (0%)	5 (1%)	1 (0%)	2 (0%)	5 (1%)	0 (0%)	0 (0%)	17 (0%)
Dalton Transactions	2 (0%)	1 (0%)	1 (0%)	1 (0%)	2 (0%)	1 (0%)	0 (0%)	0 (0%)	8 (2%)	0 (0%)	16 (0%)
Journal of Applied Crystallography	6 (1%)	2 (0%)	2 (0%)	1 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)	2 (0%)	1 (0%)	16 (0%)
Physical Chemistry Chemical Physics	0 (0%)	4 (1%)	4 (1%)	3 (1%)	2 (0%)	0 (0%)	2 (0%)	1 (0%)	0 (0%)	0 (0%)	16 (0%)
Physical review. E	3 (1%)	2 (0%)	6 (1%)	1 (0%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)	16 (0%)
Coatings	0 (0%)	2 (0%)	0 (0%)	3 (1%)	4 (1%)	1 (0%)	1 (0%)	4 (1%)	0 (0%)	0 (0%)	15 (0%)
Construction and Building Materials	1 (0%)	1 (0%)	1 (0%)	0 (0%)	3 (0%)	4 (1%)	1 (0%)	1 (0%)	0 (0%)	3 (1%)	15 (0%)
Journal of Materials Science Materials in Electronics	0 (0%)	0 (0%)	0 (0%)	6 (1%)	0 (0%)	1 (0%)	4 (1%)	2 (0%)	1 (0%)	1 (0%)	15 (0%)
Journal of Physics A Mathematical and Theoretical	8 (1%)	5 (1%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	15 (0%)
Journal of Physics Condensed Matter	3 (1%)	0 (0%)	3 (1%)	1 (0%)	4 (1%)	3 (1%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	15 (0%)
Plasma Sources Science and Technology	3 (1%)	0 (0%)	2 (0%)	3 (1%)	0 (0%)	3 (1%)	1 (0%)	1 (0%)	2 (0%)	0 (0%)	15 (0%)
Applied Physics A	1 (0%)	1 (0%)	0 (0%)	1 (0%)	1 (0%)	4 (1%)	4 (1%)	2 (0%)	0 (0%)	0 (0%)	14 (0%)
Electrochimica Acta	2 (0%)	2 (0%)	1 (0%)	1 (0%)	1 (0%)	2 (0%)	2 (0%)	0 (0%)	3 (1%)	0 (0%)	14 (0%)
Intermetallics	2 (0%)	3 (1%)	2 (0%)	1 (0%)	4 (1%)	1 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	14 (0%)
Journal of environmental chemical engineering	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	2 (0%)	3 (1%)	0 (0%)	6 (1%)	2 (0%)	14 (0%)
Optics Express	0 (0%)	4 (1%)	2 (0%)	1 (0%)	2 (0%)	2 (0%)	0 (0%)	1 (0%)	1 (0%)	1 (0%)	14 (0%)
Proceedings of SPIE, the International Society for Optical Engineering/Proceedings of SPIE	13 (2%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	14 (0%)
Progress in Organic Coatings	0 (0%)	1 (0%)	3 (1%)	7 (1%)	2 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	14 (0%)
Chemical Engineering Journal	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (0%)	2 (0%)	4 (1%)	5 (1%)	13 (0%)
Computational Materials Science	0 (0%)	1 (0%)	1 (0%)	1 (0%)	3 (0%)	1 (0%)	1 (0%)	2 (0%)	2 (0%)	1 (0%)	13 (0%)
Continuum Mechanics and Thermodynamics	0 (0%)	1 (0%)	3 (1%)	2 (0%)	3 (0%)	2 (0%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	13 (0%)

Revue	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
European Journal of Mechanics - A/Solids	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	2 (0%)	2 (0%)	2 (0%)	5 (1%)	1 (0%)	13 (0%)
Journal of Electronic Materials	3 (1%)	1 (0%)	3 (1%)	3 (1%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)	1 (0%)	13 (0%)
Journal of Instrumentation	0 (0%)	1 (0%)	0 (0%)	6 (1%)	0 (0%)	3 (1%)	1 (0%)	0 (0%)	0 (0%)	2 (0%)	13 (0%)
Journal of Material Science and Technology	0 (0%)	0 (0%)	0 (0%)	1 (0%)	5 (1%)	3 (1%)	2 (0%)	2 (0%)	0 (0%)	0 (0%)	13 (0%)
Journal of Materials Chemistry C	3 (1%)	2 (0%)	0 (0%)	2 (0%)	2 (0%)	2 (0%)	0 (0%)	1 (0%)	0 (0%)	1 (0%)	13 (0%)
Materials Letters	1 (0%)	2 (0%)	2 (0%)	0 (0%)	0 (0%)	2 (0%)	0 (0%)	2 (0%)	3 (1%)	1 (0%)	13 (0%)
Physical review. A/Physical review, A	3 (1%)	1 (0%)	2 (0%)	1 (0%)	0 (0%)	1 (0%)	2 (0%)	1 (0%)	1 (0%)	1 (0%)	13 (0%)
Polymer	0 (0%)	2 (0%)	0 (0%)	2 (0%)	0 (0%)	2 (0%)	2 (0%)	2 (0%)	0 (0%)	3 (1%)	13 (0%)
Reflats de la physique	1 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	10 (2%)	0 (0%)	13 (0%)
Superlattices and Microstructures	4 (1%)	6 (1%)	2 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	13 (0%)
Thin Solid Films	0 (0%)	3 (1%)	2 (0%)	1 (0%)	4 (1%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	1 (0%)	13 (0%)
ACS Sustainable Chemistry & Engineering	0 (0%)	0 (0%)	1 (0%)	1 (0%)	4 (1%)	2 (0%)	2 (0%)	2 (0%)	0 (0%)	0 (0%)	12 (0%)
Calphad	1 (0%)	3 (1%)	3 (1%)	1 (0%)	0 (0%)	1 (0%)	2 (0%)	0 (0%)	1 (0%)	0 (0%)	12 (0%)
Composites Part B Engineering	3 (1%)	2 (0%)	2 (0%)	1 (0%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)	2 (0%)	12 (0%)

1.15 Publications dans le top 10% les plus citées selon la source

Nombre de publications dans le top 10% les plus citées selon la source



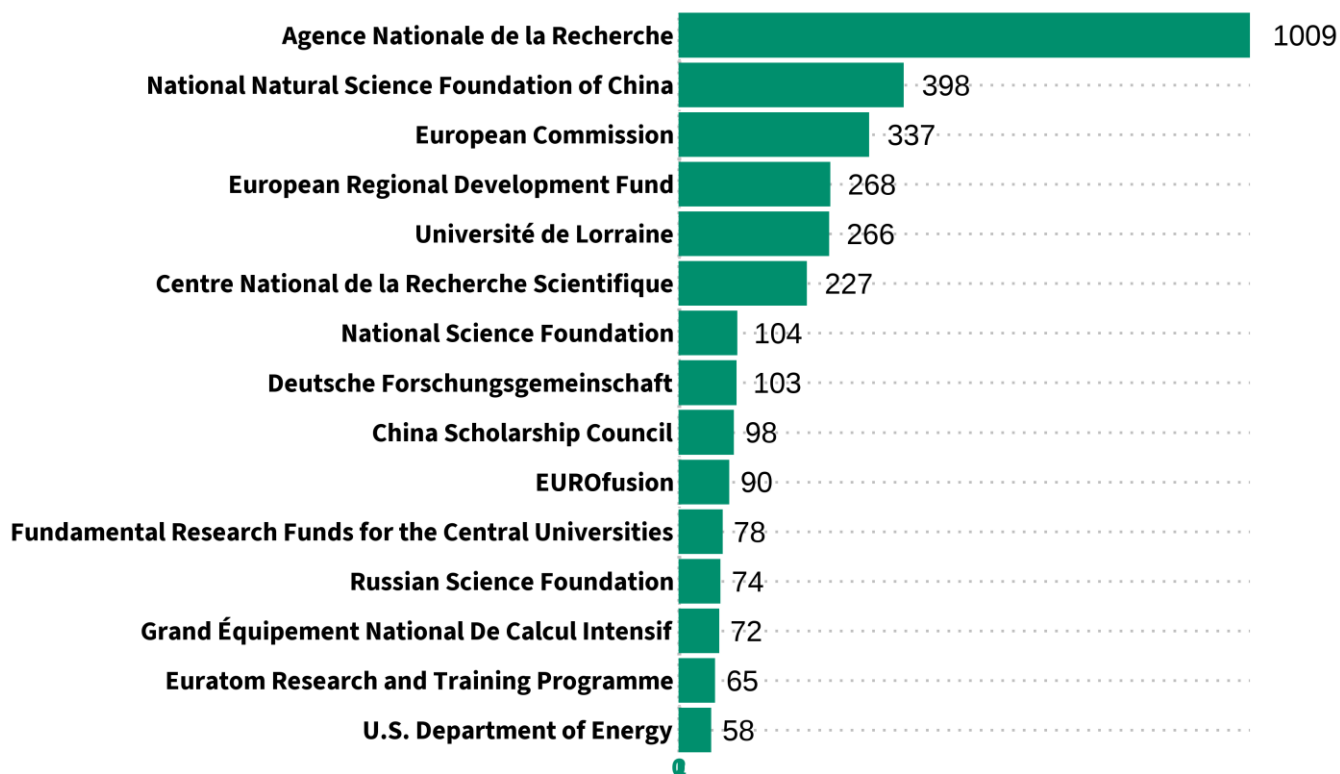
Source	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Nuclear Fusion	3	6	1	6	2	5	2	2	4	1	32
Physical review. B./Physical review. B	6	2	3	4	5	3	2	2	1	2	30
Acta Materialia	3	3	4	0	2	1	2	2	9	2	28
Applied Physics Letters	6	2	4	2	2	1	2	2	0	2	23
Composite Structures	3	0	4	2	3	3	0	0	2	2	19
Journal of Alloys and Compounds	3	3	2	0	2	1	2	2	4	0	19
Physical Review Applied	0	2	3	6	3	2	1	1	0	0	18
Carbon	3	2	1	0	1	3	1	2	2	2	17
Nature Communications	3	1	1	0	1	1	0	3	4	3	17
International Journal of Hydrogen Energy	3	0	1	0	2	1	5	0	0	3	15
International Journal of Plasticity	2	1	3	1	1	0	0	2	1	3	14
Journal of the Mechanics and Physics of Solids	1	2	1	1	2	3	0	0	2	2	14
Scripta Materialia	2	0	1	3	2	2	1	3	0	0	14
Materials & Design	3	2	2	3	1	1	0	0	0	0	12
Materials Characterization	0	1	1	1	1	2	1	1	2	2	12
Plasma Physics and Controlled Fusion	3	3	0	2	0	2	0	1	1	0	12
Scientific Reports	4	3	1	0	0	0	1	0	2	1	12
Physical Review Letters	3	2	1	2	0	0	1	1	1	0	11
Physics of Plasmas	2	2	0	1	0	0	1	1	3	1	11
ACS Applied Materials & Interfaces	0	1	2	1	0	2	0	2	1	1	10
Advanced Functional Materials	0	0	0	0	0	5	2	2	1	0	10
Corrosion Science	2	1	1	1	1	1	1	1	0	1	10
Advanced Materials	1	1	2	1	0	1	0	1	1	1	9
Applied Surface Science	1	3	2	2	0	0	0	0	1	0	9
Progress in Organic Coatings	0	1	3	4	1	0	0	0	0	0	9
Construction and Building Materials	0	1	1	0	2	2	1	0	0	1	8
Materials	0	0	3	2	1	1	0	0	0	1	8
Computer Methods in Applied Mechanics and Engineering	1	1	1	0	1	1	0	2	0	0	7
International Journal of Mechanical Sciences	1	0	0	0	0	1	2	2	0	1	7
Journal of the American Chemical Society	2	0	0	0	0	0	0	1	3	1	7
Metallurgical and Materials Transactions A	2	1	2	1	0	1	0	0	0	0	7
Oxidation of Metals	2	2	1	0	1	1	0	0	0	0	7
Polymers	1	0	0	0	4	0	0	1	1	0	7
Chemical Engineering Journal	0	0	0	0	0	0	1	2	0	3	6
Industrial Crops and Products	1	0	2	1	0	0	2	0	0	0	6
Journal of Materials Processing Technology	0	0	1	2	3	0	0	0	0	0	6
Journal of Physics A Mathematical and Theoretical	3	2	0	0	0	0	0	0	1	0	6
Metals	1	1	0	0	2	1	1	0	0	0	6
Nuclear Materials and Energy	1	1	1	1	0	0	0	0	2	0	6
Additive manufacturing	0	1	0	0	1	0	2	1	0	0	5
International Journal of Biological Macromolecules	0	0	0	0	1	1	1	0	0	2	5
Journal of environmental chemical engineering	0	0	1	0	0	0	0	0	4	0	5
Journal of Physics D Applied Physics	2	3	0	0	0	0	0	0	0	0	5
Materials Science and Engineering A	1	2	0	0	1	1	0	0	0	0	5
Optics Letters	1	0	1	2	0	0	0	1	0	0	5

Source	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Physical review. E	1	1	1	0	0	0	0	0	1	1	5
Surface and Coatings Technology	0	1	0	0	2	1	0	0	1	0	5
ACS Nano	0	0	0	0	2	0	0	0	0	2	4
Advanced Science	0	0	0	1	2	0	0	0	0	1	4
Cells	0	0	0	0	2	1	0	1	0	0	4
Composites Part B Engineering	0	1	1	0	0	0	1	1	0	0	4
Computational Materials Science	0	0	1	0	2	0	0	0	0	1	4
Dalton Transactions	1	1	0	0	0	0	0	0	2	0	4
Energies	0	0	0	0	1	2	0	1	0	0	4
European Journal of Mechanics - A/Solids	0	0	0	0	0	0	2	0	1	1	4
Intermetallics	1	1	0	1	1	0	0	0	0	0	4
International Journal of Engineering Science	0	0	1	0	2	0	1	0	0	0	4
International Journal of Solids and Structures	0	1	0	0	1	0	1	1	0	0	4
Journal of Applied Physics	0	2	1	1	0	0	0	0	0	0	4
Mechanics of Materials	0	0	0	1	1	2	0	0	0	0	4
Nano Letters	0	0	1	1	1	0	1	0	0	0	4
Nanomaterials	0	0	0	1	1	1	0	1	0	0	4
Polymer	0	0	0	0	0	2	0	1	0	1	4
Review of Scientific Instruments	0	2	0	0	0	0	1	0	1	0	4
Sensors	1	0	0	0	0	0	1	2	0	0	4
Smart Materials and Structures	0	0	1	1	1	1	0	0	0	0	4
ACS Sustainable Chemistry & Engineering	0	0	0	1	1	1	0	0	0	0	3
Carbohydrate Polymers	0	0	0	0	0	2	0	0	1	0	3
Composites Science and Technology	0	0	0	0	0	0	0	0	2	1	3
Energy Conversion and Management	1	1	0	0	0	1	0	0	0	0	3
Engineering Applications of Artificial Intelligence	0	0	0	0	0	0	0	1	1	1	3
Environmental Science and Pollution Research	2	1	0	0	0	0	0	0	0	0	3
European Journal of Heart Failure	0	1	0	0	2	0	0	0	0	0	3
Fusion Engineering and Design	0	0	0	0	0	1	0	0	2	0	3
Green Chemistry	1	1	0	0	0	0	0	1	0	0	3
High Temperature Corrosion of Materials	0	0	0	0	0	0	0	0	3	0	3
International Journal of Heat and Mass Transfer	0	2	0	0	0	1	0	0	0	0	3
Journal of Instrumentation	0	1	0	1	0	0	1	0	0	0	3
Journal of Magnetism and Magnetic Materials	0	1	0	0	1	0	1	0	0	0	3
Journal of Materials Chemistry A	1	0	1	0	0	1	0	0	0	0	3
Journal of Molecular Liquids	1	0	0	0	2	0	0	0	0	0	3
Journal of Plasma Physics	0	2	0	0	0	0	0	1	0	0	3
Journal of Power Sources	0	1	0	0	1	0	1	0	0	0	3
Journal of Sound and Vibration	0	0	1	1	0	0	0	0	1	0	3
Journal of the European Ceramic Society	0	1	1	1	0	0	0	0	0	0	3
Materials and Corrosion	1	0	1	1	0	0	0	0	0	0	3
Materials Chemistry and Physics	0	1	0	0	1	1	0	0	0	0	3
Nature	0	0	0	0	0	0	0	0	2	1	3
Nature Electronics	0	0	0	0	2	0	0	0	0	1	3
Nature Materials	0	0	1	0	0	0	0	1	1	0	3
Nature Physics	0	0	0	0	0	0	1	0	1	1	3
Physical Chemistry Chemical Physics	0	2	1	0	0	0	0	0	0	0	3

Source	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Plasma Processes and Polymers	1	0	1	0	0	0	0	0	1	0	3
Renewable and Sustainable Energy Reviews	0	0	1	0	0	0	0	1	1	0	3
RSC Advances	1	0	0	0	1	0	0	1	0	0	3
Science Advances	0	0	0	0	0	0	0	2	0	1	3
Small	0	0	0	1	0	0	0	1	0	1	3
Solar Energy Materials and Solar Cells	2	0	0	0	1	0	0	0	0	0	3
ACS Applied Bio Materials	0	0	0	0	0	2	0	0	0	0	2
ACS Applied Nano Materials	0	0	0	1	0	0	1	0	0	0	2

1.19 Principaux financeurs

Les informations sur les financements ne sont pas bien couvertes dans OpenAlex, les résultats ci-dessous sont à interpréter avec forte précaution



	2020	2017	2022	2019	2016	2018	2021	2025	2023	2024	Total
Agence Nationale de la Recherche	111 (4%)	105 (4%)	63 (3%)	116 (4%)	77 (3%)	106 (4%)	96 (4%)	104 (4%)	116 (4%)	115 (5%)	1,009 (4%)
National Natural Science Foundation of China	58 (2%)	44 (2%)	36 (1%)	46 (2%)	13 (1%)	53 (2%)	29 (1%)	40 (2%)	44 (2%)	35 (1%)	398 (2%)
European Commission	37 (1%)	19 (1%)	41 (2%)	35 (1%)	11 (0%)	13 (1%)	29 (1%)	43 (2%)	63 (2%)	46 (2%)	337 (1%)
European Regional Development Fund	42 (1%)	15 (1%)	34 (1%)	25 (1%)	13 (1%)	9 (0%)	38 (2%)	32 (1%)	31 (1%)	29 (1%)	268 (1%)
Université de Lorraine	26 (1%)	23 (1%)	20 (1%)	27 (1%)	21 (1%)	11 (0%)	24 (1%)	43 (2%)	33 (1%)	38 (2%)	266 (1%)
Centre National de la Recherche Scientifique	24 (1%)	26 (1%)	25 (1%)	21 (1%)	20 (1%)	15 (1%)	22 (1%)	21 (1%)	33 (1%)	20 (1%)	227 (1%)
National Science Foundation	6 (0%)	13 (1%)	9 (0%)	13 (0%)	12 (1%)	13 (1%)	10 (0%)	6 (0%)	13 (0%)	9 (0%)	104 (0%)
Deutsche Forschungsgemeinschaft	13 (0%)	4 (0%)	14 (1%)	6 (0%)	4 (0%)	5 (0%)	10 (0%)	12 (0%)	16 (1%)	19 (1%)	103 (0%)
China Scholarship Council	17 (1%)	7 (0%)	7 (0%)	15 (1%)	6 (0%)	7 (0%)	13 (1%)	8 (0%)	12 (0%)	6 (0%)	98 (0%)
EUROfusion	6 (0%)	10 (0%)	8 (0%)	8 (0%)	6 (0%)	3 (0%)	7 (0%)	9 (0%)	17 (1%)	16 (1%)	90 (0%)
Fundamental Research Funds for the Central Universities	23 (1%)	2 (0%)	12 (0%)	14 (0%)	3 (0%)	7 (0%)	7 (0%)	2 (0%)	5 (0%)	3 (0%)	78 (0%)
Russian Science Foundation	10 (0%)	1 (0%)	5 (0%)	12 (0%)	1 (0%)	4 (0%)	8 (0%)	7 (0%)	13 (0%)	13 (1%)	74 (0%)
Grand Équipement National De Calcul Intensif	11 (0%)	5 (0%)	8 (0%)	5 (0%)	3 (0%)	3 (0%)	9 (0%)	4 (0%)	9 (0%)	15 (1%)	72 (0%)
Euratom Research and Training Programme	3 (0%)	5 (0%)	7 (0%)	6 (0%)	2 (0%)	3 (0%)	5 (0%)	8 (0%)	14 (1%)	12 (0%)	65 (0%)
U.S. Department of Energy	11 (0%)	4 (0%)	4 (0%)	6 (0%)	2 (0%)	7 (0%)	6 (0%)	5 (0%)	7 (0%)	6 (0%)	58 (0%)
Horizon 2020 Framework Programme	17 (1%)	2 (0%)	6 (0%)	6 (0%)	0 (0%)	3 (0%)	3 (0%)	7 (0%)	7 (0%)	5 (0%)	56 (0%)
Engineering and Physical Sciences Research Council	9 (0%)	4 (0%)	8 (0%)	8 (0%)	2 (0%)	4 (0%)	7 (0%)	3 (0%)	4 (0%)	3 (0%)	52 (0%)
Japan Society for the Promotion of Science	3 (0%)	3 (0%)	10 (0%)	1 (0%)	2 (0%)	1 (0%)	3 (0%)	10 (0%)	12 (0%)	7 (0%)	52 (0%)
National Key Research and Development Program of China	4 (0%)	4 (0%)	2 (0%)	5 (0%)	2 (0%)	7 (0%)	4 (0%)	7 (0%)	5 (0%)	3 (0%)	43 (0%)
Association Nationale de la Recherche et de la Technologie	6 (0%)	1 (0%)	2 (0%)	1 (0%)	5 (0%)	5 (0%)	5 (0%)	5 (0%)	7 (0%)	5 (0%)	42 (0%)
Federación Española de Enfermedades Raras	3 (0%)	9 (0%)	1 (0%)	6 (0%)	6 (0%)	8 (0%)	2 (0%)	1 (0%)	4 (0%)	1 (0%)	41 (0%)
H2020 Marie Skłodowska-Curie Actions	7 (0%)	1 (0%)	7 (0%)	3 (0%)	0 (0%)	3 (0%)	4 (0%)	5 (0%)	4 (0%)	5 (0%)	39 (0%)
Conseil régional du Grand Est	5 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)	1 (0%)	3 (0%)	8 (0%)	11 (0%)	8 (0%)	38 (0%)
King Saud University	0 (0%)	0 (0%)	8 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (0%)	3 (0%)	15 (1%)	8 (0%)	37 (0%)
Ministry of Education and Science of the Russian Federation	6 (0%)	5 (0%)	3 (0%)	7 (0%)	0 (0%)	9 (0%)	2 (0%)	3 (0%)	0 (0%)	2 (0%)	37 (0%)
Javna Agencija za Raziskovalno Dejavnost RS	5 (0%)	1 (0%)	6 (0%)	1 (0%)	2 (0%)	1 (0%)	3 (0%)	6 (0%)	8 (0%)	2 (0%)	35 (0%)
Association Instituts Carnot	9 (0%)	2 (0%)	2 (0%)	4 (0%)	2 (0%)	4 (0%)	8 (0%)	2 (0%)	1 (0%)	0 (0%)	34 (0%)
Basic Energy Sciences	8 (0%)	2 (0%)	4 (0%)	3 (0%)	1 (0%)	6 (0%)	1 (0%)	2 (0%)	4 (0%)	2 (0%)	33 (0%)

	2020	2017	2022	2019	2016	2018	2021	2025	2023	2024	Total
China Postdoctoral Science Foundation	3 (0%)	4 (0%)	2 (0%)	6 (0%)	0 (0%)	3 (0%)	1 (0%)	3 (0%)	7 (0%)	4 (0%)	33 (0%)
Conseil Régional de Lorraine	4 (0%)	4 (0%)	2 (0%)	4 (0%)	15 (1%)	1 (0%)	0 (0%)	0 (0%)	2 (0%)	0 (0%)	32 (0%)
H2020 Euratom	4 (0%)	4 (0%)	4 (0%)	10 (0%)	2 (0%)	3 (0%)	4 (0%)	0 (0%)	1 (0%)	0 (0%)	32 (0%)
Schweizerischer Nationalfonds zur Förderung der Wissenschaftlichen Forschung	6 (0%)	0 (0%)	2 (0%)	3 (0%)	0 (0%)	3 (0%)	3 (0%)	5 (0%)	6 (0%)	4 (0%)	32 (0%)
Air Force Office of Scientific Research	4 (0%)	0 (0%)	3 (0%)	6 (0%)	1 (0%)	3 (0%)	9 (0%)	1 (0%)	4 (0%)	0 (0%)	31 (0%)
Coordenação de Aperfeiçoamento de Pessoal de Nível Superior	3 (0%)	3 (0%)	5 (0%)	2 (0%)	5 (0%)	0 (0%)	6 (0%)	1 (0%)	2 (0%)	4 (0%)	31 (0%)
Ministère de l'Education Nationale, de l'Enseignement Supérieur et de la Recherche	3 (0%)	1 (0%)	4 (0%)	5 (0%)	6 (0%)	2 (0%)	1 (0%)	5 (0%)	3 (0%)	1 (0%)	31 (0%)
Russian Foundation for Basic Research	8 (0%)	4 (0%)	2 (0%)	7 (0%)	3 (0%)	2 (0%)	2 (0%)	0 (0%)	1 (0%)	2 (0%)	31 (0%)
ArcelorMittal	2 (0%)	2 (0%)	1 (0%)	3 (0%)	4 (0%)	4 (0%)	1 (0%)	4 (0%)	3 (0%)	5 (0%)	29 (0%)
Conselho Nacional de Desenvolvimento Científico e Tecnológico	5 (0%)	3 (0%)	3 (0%)	2 (0%)	7 (0%)	2 (0%)	2 (0%)	0 (0%)	2 (0%)	3 (0%)	29 (0%)
Deutsches Elektronen-Synchrotron	5 (0%)	0 (0%)	2 (0%)	1 (0%)	2 (0%)	3 (0%)	4 (0%)	3 (0%)	2 (0%)	7 (0%)	29 (0%)
European Synchrotron Radiation Facility	2 (0%)	5 (0%)	2 (0%)	1 (0%)	6 (0%)	3 (0%)	3 (0%)	1 (0%)	2 (0%)	3 (0%)	28 (0%)
Natural Sciences and Engineering Research Council of Canada	4 (0%)	4 (0%)	1 (0%)	2 (0%)	3 (0%)	1 (0%)	3 (0%)	2 (0%)	1 (0%)	6 (0%)	27 (0%)
Office of Naval Research	6 (0%)	1 (0%)	3 (0%)	1 (0%)	3 (0%)	3 (0%)	4 (0%)	1 (0%)	5 (0%)	0 (0%)	27 (0%)
Fundação para a Ciência e a Tecnologia	2 (0%)	3 (0%)	0 (0%)	2 (0%)	2 (0%)	3 (0%)	0 (0%)	2 (0%)	9 (0%)	3 (0%)	26 (0%)
Higher Education Discipline Innovation Project	7 (0%)	2 (0%)	4 (0%)	2 (0%)	2 (0%)	1 (0%)	2 (0%)	0 (0%)	5 (0%)	1 (0%)	26 (0%)
Office of Science	4 (0%)	1 (0%)	2 (0%)	1 (0%)	2 (0%)	3 (0%)	3 (0%)	2 (0%)	4 (0%)	3 (0%)	25 (0%)
Comunidad de Madrid	4 (0%)	1 (0%)	2 (0%)	1 (0%)	0 (0%)	3 (0%)	5 (0%)	3 (0%)	3 (0%)	2 (0%)	24 (0%)
Ministry of Science and Higher Education of the Russian Federation	4 (0%)	0 (0%)	2 (0%)	0 (0%)	0 (0%)	0 (0%)	5 (0%)	3 (0%)	7 (0%)	3 (0%)	24 (0%)
Department of Science and Technology, Ministry of Science and Technology, India	2 (0%)	0 (0%)	1 (0%)	2 (0%)	3 (0%)	2 (0%)	2 (0%)	5 (0%)	1 (0%)	5 (0%)	23 (0%)
European Cooperation in Science and Technology	4 (0%)	0 (0%)	2 (0%)	0 (0%)	2 (0%)	1 (0%)	1 (0%)	5 (0%)	5 (0%)	3 (0%)	23 (0%)
Ministerio de Ciencia e Innovación	2 (0%)	0 (0%)	5 (0%)	1 (0%)	0 (0%)	0 (0%)	4 (0%)	3 (0%)	4 (0%)	4 (0%)	23 (0%)
Ministerio de Economía y Competitividad	1 (0%)	8 (0%)	0 (0%)	7 (0%)	0 (0%)	4 (0%)	3 (0%)	0 (0%)	0 (0%)	0 (0%)	23 (0%)
Agencia Estatal de Investigación	2 (0%)	0 (0%)	2 (0%)	0 (0%)	0 (0%)	0 (0%)	4 (0%)	5 (0%)	7 (0%)	2 (0%)	22 (0%)
Fondation CentraleSupélec	2 (0%)	0 (0%)	5 (0%)	4 (0%)	0 (0%)	2 (0%)	4 (0%)	1 (0%)	3 (0%)	1 (0%)	22 (0%)

	2020	2017	2022	2019	2016	2018	2021	2025	2023	2024	Total
H2020 European Research Council	6 (0%)	0 (0%)	0 (0%)	2 (0%)	0 (0%)	0 (0%)	2 (0%)	4 (0%)	2 (0%)	6 (0%)	22 (0%)
European Research Council	1 (0%)	4 (0%)	0 (0%)	1 (0%)	2 (0%)	3 (0%)	0 (0%)	5 (0%)	1 (0%)	4 (0%)	21 (0%)
Fundação de Amparo à Pesquisa do Estado de São Paulo	1 (0%)	3 (0%)	4 (0%)	2 (0%)	1 (0%)	1 (0%)	6 (0%)	1 (0%)	1 (0%)	1 (0%)	21 (0%)
Grantová Agentura České Republiky	3 (0%)	1 (0%)	2 (0%)	3 (0%)	1 (0%)	4 (0%)	5 (0%)	1 (0%)	1 (0%)	0 (0%)	21 (0%)
Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation	3 (0%)	0 (0%)	5 (0%)	2 (0%)	0 (0%)	0 (0%)	4 (0%)	1 (0%)	3 (0%)	3 (0%)	21 (0%)
National Research Foundation of Korea	1 (0%)	1 (0%)	1 (0%)	1 (0%)	1 (0%)	3 (0%)	4 (0%)	3 (0%)	6 (0%)	0 (0%)	21 (0%)
Ajman University	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	4 (0%)	10 (0%)	6 (0%)	20 (0%)
Bundesministerium für Bildung und Forschung	2 (0%)	2 (0%)	0 (0%)	4 (0%)	3 (0%)	1 (0%)	2 (0%)	3 (0%)	1 (0%)	2 (0%)	20 (0%)
Institut Universitaire de France	3 (0%)	6 (0%)	1 (0%)	1 (0%)	1 (0%)	2 (0%)	1 (0%)	3 (0%)	1 (0%)	1 (0%)	20 (0%)
National Research Foundation	2 (0%)	1 (0%)	1 (0%)	1 (0%)	1 (0%)	4 (0%)	3 (0%)	1 (0%)	5 (0%)	1 (0%)	20 (0%)
Région Normandie	2 (0%)	0 (0%)	3 (0%)	1 (0%)	1 (0%)	0 (0%)	3 (0%)	1 (0%)	0 (0%)	8 (0%)	19 (0%)
Consejo Nacional de Ciencia y Tecnología	2 (0%)	1 (0%)	2 (0%)	1 (0%)	1 (0%)	2 (0%)	6 (0%)	3 (0%)	0 (0%)	0 (0%)	18 (0%)
Natural Science Foundation of Hebei Province	7 (0%)	0 (0%)	4 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (0%)	2 (0%)	0 (0%)	2 (0%)	18 (0%)
Belgian Federal Science Policy Office	0 (0%)	4 (0%)	1 (0%)	0 (0%)	9 (0%)	2 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	17 (0%)
Campus France	1 (0%)	0 (0%)	3 (0%)	4 (0%)	0 (0%)	1 (0%)	1 (0%)	3 (0%)	1 (0%)	3 (0%)	17 (0%)
Fonds De La Recherche Scientifique - FNRS	1 (0%)	2 (0%)	0 (0%)	1 (0%)	3 (0%)	2 (0%)	2 (0%)	3 (0%)	1 (0%)	2 (0%)	17 (0%)
Liaoning Revitalization Talents Program	9 (0%)	0 (0%)	3 (0%)	2 (0%)	0 (0%)	0 (0%)	3 (0%)	0 (0%)	0 (0%)	0 (0%)	17 (0%)
Ministère de l'Enseignement Supérieur et de la Recherche	0 (0%)	3 (0%)	3 (0%)	3 (0%)	1 (0%)	2 (0%)	1 (0%)	0 (0%)	2 (0%)	2 (0%)	17 (0%)
Seventh Framework Programme	1 (0%)	2 (0%)	1 (0%)	1 (0%)	9 (0%)	2 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	17 (0%)
Division of Materials Research	1 (0%)	3 (0%)	3 (0%)	3 (0%)	4 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (0%)	0 (0%)	16 (0%)
European Food Safety Authority	0 (0%)	0 (0%)	3 (0%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)	11 (0%)	0 (0%)	16 (0%)
European Space Agency	4 (0%)	6 (0%)	3 (0%)	3 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	16 (0%)
Indo-French Centre for the Promotion of Advanced Research	3 (0%)	0 (0%)	1 (0%)	2 (0%)	0 (0%)	0 (0%)	2 (0%)	4 (0%)	1 (0%)	3 (0%)	16 (0%)
Horizon 2020	3 (0%)	1 (0%)	1 (0%)	1 (0%)	0 (0%)	1 (0%)	2 (0%)	0 (0%)	3 (0%)	3 (0%)	15 (0%)
Ministry of Education, Culture, Sports, Science and Technology	0 (0%)	1 (0%)	3 (0%)	2 (0%)	1 (0%)	1 (0%)	0 (0%)	1 (0%)	4 (0%)	2 (0%)	15 (0%)
Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	1 (0%)	1 (0%)	0 (0%)	0 (0%)	3 (0%)	4 (0%)	2 (0%)	0 (0%)	2 (0%)	2 (0%)	15 (0%)
Université de Strasbourg	1 (0%)	1 (0%)	3 (0%)	2 (0%)	0 (0%)	0 (0%)	1 (0%)	4 (0%)	3 (0%)	0 (0%)	15 (0%)

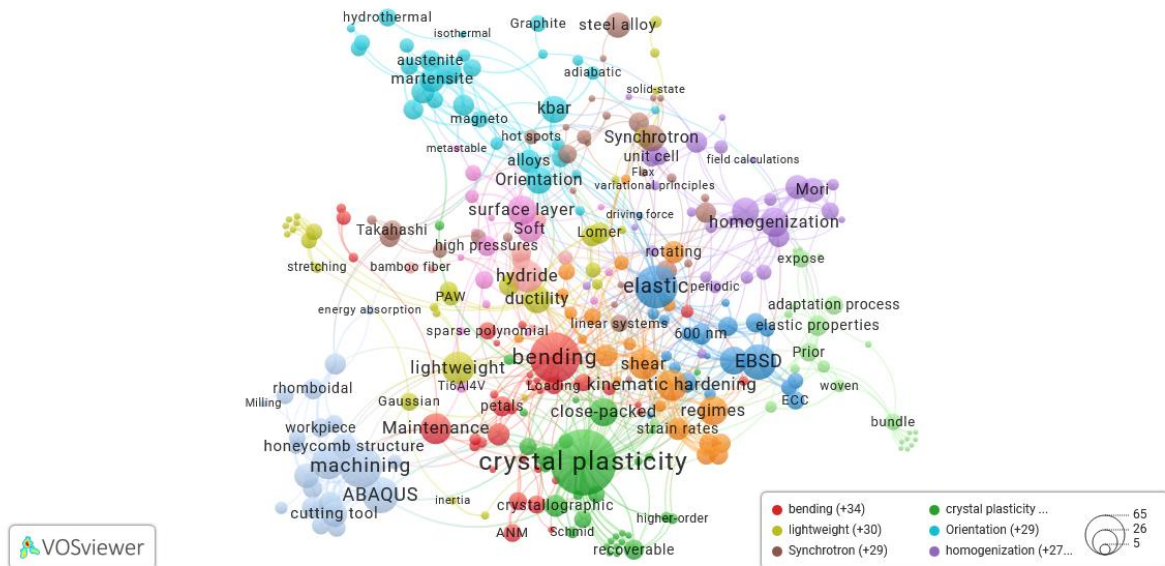
	2020	2017	2022	2019	2016	2018	2021	2025	2023	2024	Total
Abdus Salam International Centre for Theoretical Physics	1 (0%)	3 (0%)	0 (0%)	2 (0%)	3 (0%)	3 (0%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	14 (0%)
Commissariat à l'Énergie Atomique et aux Énergies Alternatives	1 (0%)	2 (0%)	1 (0%)	2 (0%)	1 (0%)	2 (0%)	3 (0%)	0 (0%)	0 (0%)	2 (0%)	14 (0%)
Ministerio de Ciencia, Innovación y Universidades	3 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	5 (0%)	2 (0%)	2 (0%)	0 (0%)	14 (0%)
Nederlandse Organisatie voor Wetenschappelijk Onderzoek	0 (0%)	0 (0%)	2 (0%)	3 (0%)	1 (0%)	1 (0%)	2 (0%)	1 (0%)	3 (0%)	1 (0%)	14 (0%)
Science and Engineering Research Board	1 (0%)	0 (0%)	2 (0%)	3 (0%)	0 (0%)	0 (0%)	1 (0%)	3 (0%)	2 (0%)	2 (0%)	14 (0%)
Equipex	1 (0%)	2 (0%)	1 (0%)	2 (0%)	0 (0%)	0 (0%)	1 (0%)	2 (0%)	4 (0%)	0 (0%)	13 (0%)
European Centre for Disease Prevention and Control	0 (0%)	0 (0%)	2 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	10 (0%)	0 (0%)	13 (0%)
Institut National de la Santé et de la Recherche Médicale	0 (0%)	0 (0%)	4 (0%)	1 (0%)	0 (0%)	0 (0%)	2 (0%)	3 (0%)	3 (0%)	0 (0%)	13 (0%)
Ministry of Education, India	3 (0%)	0 (0%)	2 (0%)	1 (0%)	0 (0%)	0 (0%)	1 (0%)	1 (0%)	3 (0%)	2 (0%)	13 (0%)
RWTH Aachen University	2 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (0%)	2 (0%)	4 (0%)	3 (0%)	13 (0%)
Universität des Saarlandes	1 (0%)	2 (0%)	1 (0%)	2 (0%)	4 (0%)	2 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	13 (0%)
Universiti Sains Malaysia	2 (0%)	0 (0%)	1 (0%)	4 (0%)	1 (0%)	2 (0%)	0 (0%)	2 (0%)	0 (0%)	1 (0%)	13 (0%)
Vetenskapsrådet	2 (0%)	0 (0%)	1 (0%)	3 (0%)	0 (0%)	2 (0%)	0 (0%)	2 (0%)	0 (0%)	3 (0%)	13 (0%)
Alexander von Humboldt-Stiftung	0 (0%)	0 (0%)	2 (0%)	2 (0%)	1 (0%)	0 (0%)	1 (0%)	1 (0%)	2 (0%)	3 (0%)	12 (0%)
Deutsch-Französische Hochschule	2 (0%)	1 (0%)	2 (0%)	4 (0%)	1 (0%)	1 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	12 (0%)
European Social Fund	1 (0%)	1 (0%)	0 (0%)	3 (0%)	1 (0%)	0 (0%)	2 (0%)	1 (0%)	2 (0%)	1 (0%)	12 (0%)
Fonds Wetenschappelijk Onderzoek	1 (0%)	2 (0%)	0 (0%)	1 (0%)	4 (0%)	2 (0%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	12 (0%)
Ministerstvo Školství, Mládeže a Tělovýchovy	0 (0%)	2 (0%)	2 (0%)	1 (0%)	0 (0%)	1 (0%)	1 (0%)	2 (0%)	1 (0%)	2 (0%)	12 (0%)
National Science and Technology Council	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (0%)	3 (0%)	5 (0%)	12 (0%)
Natural Science Foundation of Jiangsu Province	0 (0%)	1 (0%)	1 (0%)	1 (0%)	0 (0%)	1 (0%)	0 (0%)	2 (0%)	5 (0%)	1 (0%)	12 (0%)

[Lien vers la carte des laboratoires](#)

[Lien vers la carte des financements](#)

[Lien vers la carte des pays](#)

LEM3



[Lien vers la carte thématiques](#)

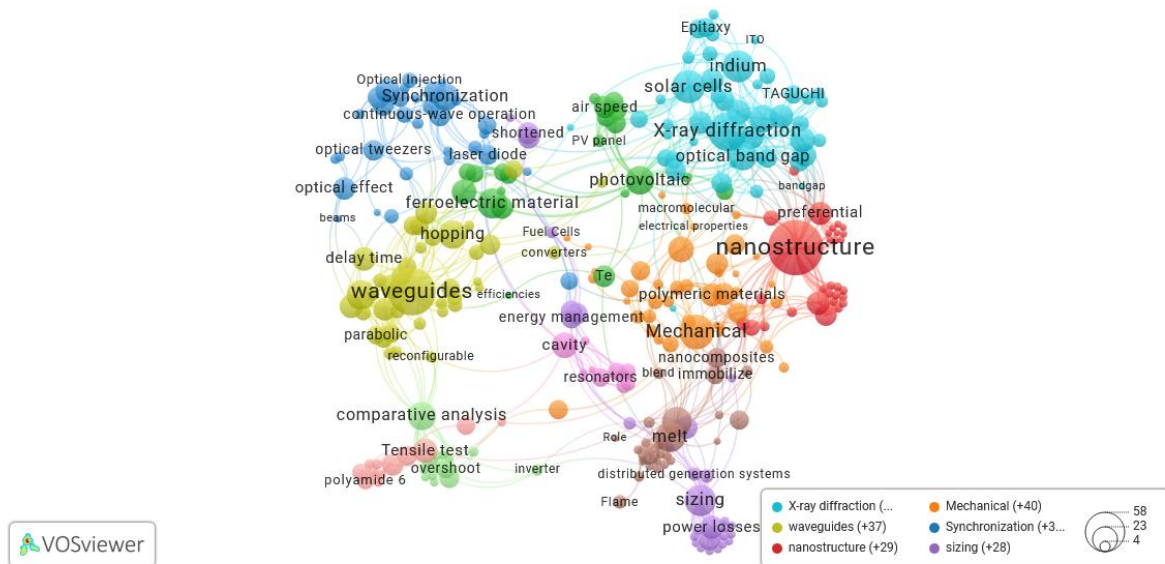
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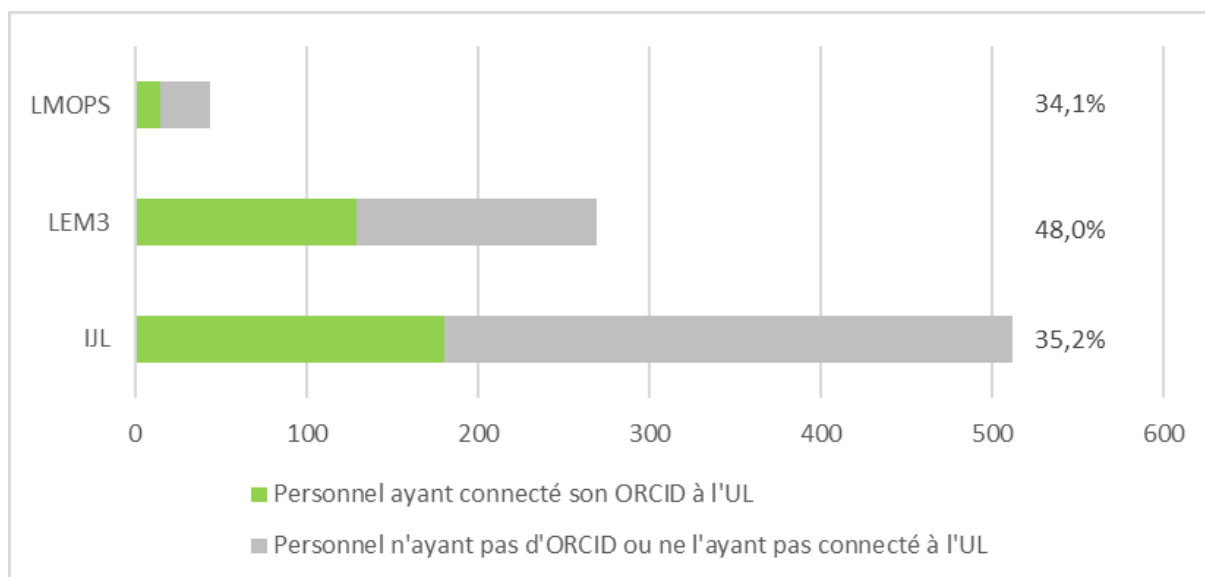
[Lien vers la carte des laboratoires](#)

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3. Identifiants pérennes : profils ORCID liés au système d'information de l'Université de Lorraine

Les données, collectées le 03/04/2026, proviennent du Système d'Information de l'Université de Lorraine. Le personnel considéré ici comprend les titulaires et contractuels, de l'UL ou hébergés, dont les doctorants, BIATSS et émérites. La connexion au SI de l'UL permet au personnel de recherche d'obtenir sur leur profil ORCID une affiliation dont la source est certifiée (coche verte) : selon le statut du personnel, une affiliation UL et/ou une affiliation à leur unité de recherche.



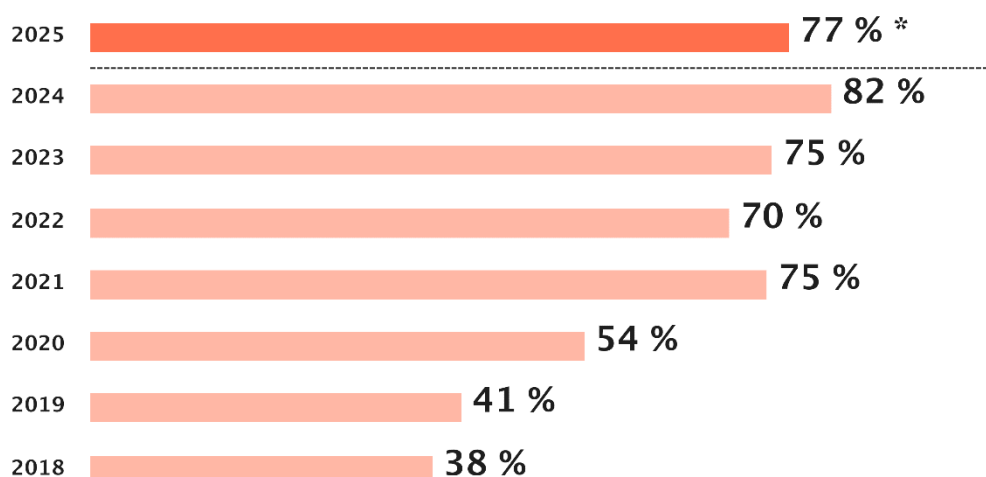
4. Baromètre de la science ouverte

L'Université de Lorraine se dote d'un outil de pilotage pour suivre la progression de la Science Ouverte au sein de sa production scientifique. En 2019, le Ministère de l'Enseignement Supérieur, de la Recherche et de l'Innovation a produit une première version du Baromètre français de la Science Ouverte. L'Université de Lorraine a été le premier établissement à en proposer une déclinaison au niveau de l'établissement. A présent, des déclinaisons au niveau d'une unité de recherche sont également possibles.

IJL

Le taux d'accès ouvert indiqué ici est inférieur à celui qui s'affiche sur la collection HAL du laboratoire, car le corpus considéré ci-dessous est plus complet : il prend aussi en compte des publications qui n'ont pas encore été déposées dans HAL.

Institut Jean Lamour : Taux d'accès ouvert des publications scientifiques de IJL, avec un DOI Crossref, parues durant l'année précédente par année d'observation

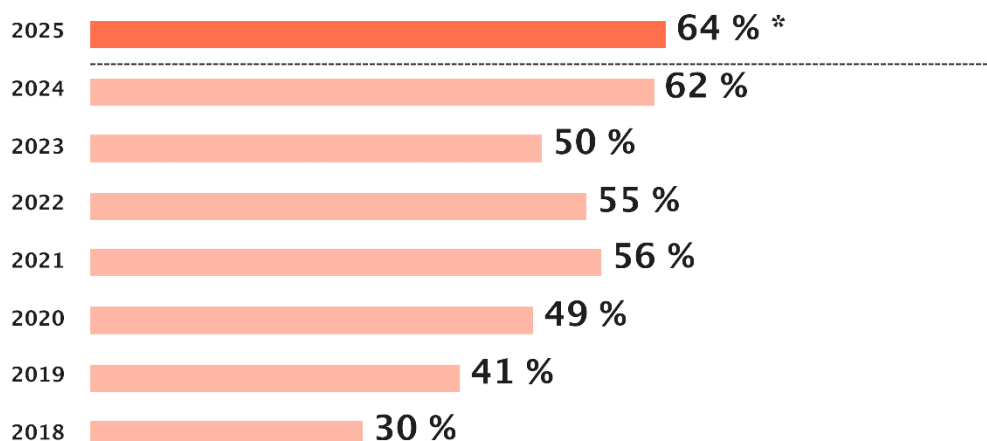


Baromètre français de la Science Ouverte – CC-BY MESRE, Sources : Unpaywall, HAL, MESRE, Institut Jean Lamour

LEM3

Le taux d'accès ouvert indiqué ici est inférieur à celui qui s'affiche sur la collection HAL du laboratoire, car le corpus considéré ci-dessous est plus complet : il prend aussi en compte des publications qui n'ont pas encore été déposées dans HAL.

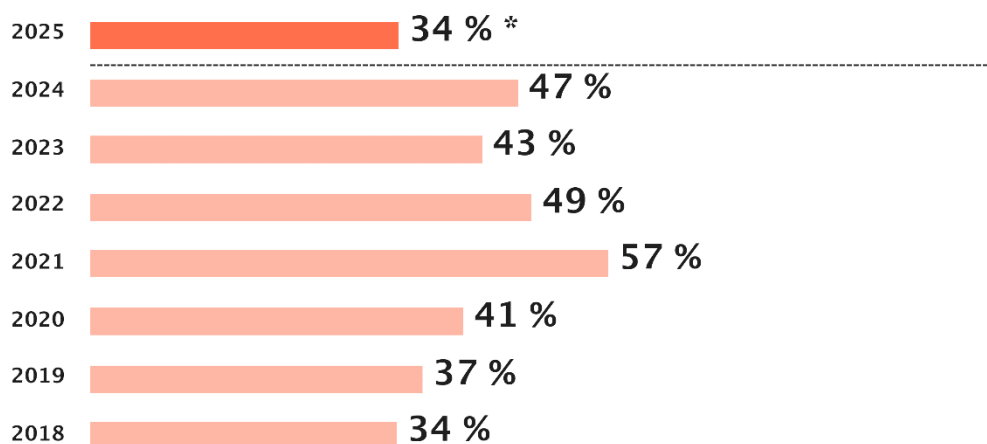
Laboratoire d'Étude des Microstructures et de Mécanique des Matériaux : Taux d'accès ouvert des publications scientifiques de LEM3, avec un DOI Crossref, parues durant l'année précédente par année d'observation



Science Ouverte – CC-BY MESRE, Sources : Unpaywall, HAL, MESRE, Laboratoire d'Étude des Microstructures et de Mécanique des Matériaux

LMOPS

Laboratoire Matériaux Optiques, Photonique et Systèmes : Taux d'accès ouvert des publications scientifiques de LMOPS, avec un DOI Crossref, parues durant l'année précédente par année d'observation



Science Ouverte – CC-BY MESRE, Sources : Unpaywall, HAL, MESRE, Laboratoire Matériaux Optiques, Photonique et Systèmes

5. Paiements d'APC

