

Table SPBS-56

Internationally coauthored coronavirus articles, by selected region, country, or economy: 2020

(Number)

Region, country, or economy	Austria	Belgium	Czechia	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Poland	Portugal	Romania	Spain	Sweden	Argentina	Australia	Bangladesh	Brazil	Canada	Chile	China	Colombia	Egypt	India	Indonesia	Iran	Israel	Japan	Malaysia	Mexico	New Zealand	Nigeria	Norway	Pakistan	Peru	Russia	Saudi Arabia	Singapore	South Africa	South Korea	Switzerland	Taiwan	Thailand	Turkey	United Arab Emirates	United Kingdom	United States	Vietnam		
Austria	na	63	23	17	19	100	140	35	23	137	78	32	26	19	85	56	12	47	1	29	49	13	44	5	5	12	1	16	17	17	1	10	9	2	29	2	1	23	6	14	10	15	89	7	4	32	4	149	148	1		
Belgium	63	na	27	36	26	189	140	43	38	205	162	39	49	29	119	58	23	72	3	55	86	15	68	13	9	27	2	16	25	33	7	11	15	6	34	5	8	26	20	19	39	11	105	9	14	41	5	222	197	11		
Czechia	23	27	na	12	13	27	37	22	15	41	28	20	13	16	32	17	7	17	2	10	15	3	24	4	6	15	1	10	15	10	7	6	na	1	7	3	4	19	9	9	4	3	20	2	na	21	2	47	37	na		
Denmark	17	36	12	na	22	61	88	31	23	100	68	20	18	7	77	42	11	67	3	23	60	7	59	6	5	20	1	15	28	17	2	10	10	2	15	2	4	16	10	21	12	16	56	7	2	17	10	142	134	2		
Finland	19	26	13	22	na	51	46	28	27	47	36	25	23	17	44	45	12	27	8	23	20	3	33	7	10	17	na	11	11	12	1	13	6	4	16	3	5	12	8	6	10	8	35	4	3	26	5	72	75	4		
France	100	189	27	61	51	na	241	78	57	364	172	62	73	31	241	94	29	124	6	95	191	22	145	16	24	65	9	23	47	55	9	42	22	7	43	17	18	50	38	51	38	48	181	16	18	63	14	339	436	19		
Germany	140	140	37	88	46	241	na	95	59	377	236	95	97	38	223	113	38	163	11	98	158	25	206	23	41	89	11	42	56	72	13	50	28	13	59	12	17	72	30	68	56	47	228	31	13	72	17	426	515	8		
Greece	35	43	22	31	28	78	95	na	23	141	62	40	38	41	84	39	16	33	3	30	43	9	34	9	10	26	4	18	25	16	8	20	8	5	23	4	5	39	8	19	10	10	59	4	3	53	13	121	136	4		
Ireland	23	38	15	23	27	57	59	23	na	83	48	23	21	14	59	32	8	54	3	20	46	5	30	7	9	20	1	6	20	16	4	11	14	na	16	5	7	14	10	17	12	4	41	5	3	25	5	160	114	1		
Italy	137	205	41	100	47	364	377	141	83	na	249	104	114	65	435	153	50	211	10	176	256	40	249	39	52	104	10	88	92	85	24	70	33	12	62	20	17	104	51	82	63	66	250	28	16	115	33	662	833	9		
Netherlands	78	162	28	68	36	172	236	62	48	249	na	54	57	25	155	93	24	129	8	63	115	20	101	14	17	45	9	24	32	45	11	17	18	4	39	10	6	30	23	41	36	24	149	19	12	52	14	338	316	2		
Poland	32	39	20	20	25	62	95	40	23	104	54	na	33	29	67	104	38	15	32	4	29	48	7	40	9	15	34	3	32	19	19	7	16	2	2	11	8	2	18	14	16	12	9	53	7	5	36	11	103	116	4	
Portugal	26	49	13	18	23	73	97	38	21	114	57	33	na	24	107	30	13	34	3	75	49	10	41	16	11	29	4	20	21	22	7	17	10	7	14	10	5	22	5	10	15	15	42	5	1	33	8	116	80	3		
Romania	19	29	16	7	17	31	38	41	14	65	25	29	24	na	38	18	9	9	6	10	12	7	14	4	6	13	1	18	9	6	4	7	1	2	8	7	3	21	9	3	2	6	23	8	na	37	1	55	54	6		
Spain	85	119	32	77	44	241	223	84	59	435	155	67	107	38	na	92	68	116	8	147	151	66	136	60	31	74	13	38	51	69	16	67	24	9	31	17	23	54	26	51	37	59	151	25	14	74	15	354	410	3		
Sweden	56	58	17	42	45	94	113	39	32	153	93	38	30	18	92	na	18	72	13	43	61	8	85	8	12	36	na	26	25	33	5	21	10	6	55	6	7	18	15	27	34	14	67	11	4	34	10	183	182	7		
Argentina	12	23	7	11	12	29	38	16	8	50	24	15	13	9	68	18	na	30	1	64	36	44	28	38	8	20	2	8	9	20	6	41	2	6	5	3	24	11	7	16	18	16	34	4	8	19	2	53	102	1		
Australia	47	72	17	67	27	124	163	33	54	211	129	32	34	9	116	72	30	na	40	90	225	33	289	22	15	128	19	54	30	79	42	27	87	12	40	15	15	28	59	88	64	51	111	33	27	31	27	410	524	26		
Bangladesh	1	3	2	3	8	6	11	3	3	10	8	4	3	6	8	13	1	40	na	10	22	4	33	4	15	40	9	8	2	25	29	4	4	6	6	14	4	na	23	6	10	16	8	7	5	10	5	55	85	5		
Brazil	29	55	10	23	23	95	98	30	20	176	63	29	75	10	147	43	64	90	10	na	113	59	89	69	26	71	8	23	23	41	11	69	17	9	25	8	39	25	23	34	49	28	58	13	11	38	15	178	330	3		
Canada	49	86	15	60	20	191	158	43	46	256	115	48	49	12	151	61	36	225	22	113	na	31	264	26	24	100	5	81	49	59	20	54	46	14	31	32	12	31	79	78	52	41	125	16	78	17	46	31	125	382	805	9
Chile	13	15	3	7	3	22	25	9	5	40	20	7	10	7	66	8	44	33	4	59	31	na	23	40	3	22	4	10	8	13	3	37	7	4	7	4	23	10	5	11	18	12	15	7	1	12	1	39	88	3		
China	44	68	24	59	33	145	206	34	30	249	101	40	41	14	136	85	28	289	33	89	264	23	na	25	39	121	23	52	45	138	55	38	33	18	33	92	13	45	88	148	47	99	106	85	53	49	24	493	1,164	22		
Colombia	5	13	4	6	7	16	23	9	7	39	14	9	16	4	60	8	38	22	4	69	26	40	25	na	9	51	7	11	11	18	2	43	5	5	7	5	33	9	23	12	14	11	23	6	6	13	9	39	97	1		
Egypt	5	9	6	5	10	24	41	10	9	52	17	15	11	6	31	12	8	15	15	26	24	3	39	9	na	45	8	24	5	27	12	14	7	15	3	19	6	8	172	7	12	12	14	22	12	8	23	31	70	116	5	
India	12	27	15	20	17	65	89	26	20	104	45	34	29	13	74	36	20	128	40	71	100	22	121	51	45	na	36	55	24	78	41	36	25	22	23	39	23	36	141	62	53	95	45	39	41	52	36	237	448	22		
Indonesia	1	2	1	1	na	9	11	4	1	10	9	3	4	1	13	na	2	19	9	8	5	4	23	7	8	36	na	13	1	24	37	2	8	5	2	4	5	5	11	16	7	14	4	25	20	7	3	26	35	7		
Iran	16	16	10	15	11	23	42	18	6	88	24	32	20	18	38	26	8	54	8	23	81	10	52	11	24	55	13	na	9	19	20	11	14	8	12	22	9	17	22	19	16	12	19	26	11	40	21	101	221	17		
Israel	17	25	15	28	11	47	56	25	20	92	32	19	21	9	51	25	9	30	2	23	49	8	45	11	5	24	1	9	na	27	2	9	7	2	11	2	4	38	4	12	12	11	38	6	5	23	3	87	119	2		
Japan	17	33	10	17	12	55	72	16	16	85	45	19	22	6	69	33	20	79	25	41	59	13	138	18	27	78	24	19	27	na	19	25	19	8	13	11	8	18	34	38	23	60	38	40	32	30	9	113	212	15		
Malaysia	1	7	7	2	1	9	13	8	4	24	11	7	7	4	16	5	6	42	29	11	20	3	55	2	12	41	37	20	2	19	na	3	3	7	2	38	2	2	41	23	13	12	10	16	23	9	7	61	52	17		
Mexico	10	11	6	10	13	42	50	20	11	70	17	16	17	7	67	21	41	27	4	69	54	37	38	43	14	36	2	11	9	25	3	na	9	4	8	14	28	7	16	13	15	16	26	7	5	21	6	46	174	5		
New Zealand	9	15	na	10	6	22	28	8	14	33	18	2	10	1	24	10	2	87	4	17	46	7	33	5	7	25	8	14	7	19	3	9	na	5	7	4	4	10	5	14	14	10	12	5	7	6	2	79	74	2		
Nigeria	2	6	1	2	4	7	13	5	na	12	4																																									

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Peru	1	8	4	4	5	18	17	5	7	17	6	2	5	3	23	7	24	15	4	39	12	23	13	33	6	23	5	9	4	8	2	28	4	5	5	3	na	4	12	6	5	5	12	6	4	6	4	26	66	1
Russia	23	26	19	16	12	50	72	39	14	104	30	18	22	21	54	18	11	28	na	25	31	10	45	9	8	36	5	17	38	18	2	7	10	2	10	3	4	na	9	14	18	10	32	3	2	22	7	65	105	5
Saudi Arabia	6	20	9	10	8	38	30	8	10	51	23	14	5	9	26	15	7	59	23	23	79	5	88	23	172	141	11	22	4	34	41	16	5	18	8	113	12	9	na	14	24	33	19	20	7	35	42	105	188	18
Singapore	14	19	9	21	6	51	68	19	17	82	41	16	10	3	51	27	16	88	6	34	78	11	148	12	7	62	16	19	12	38	23	13	14	4	12	4	6	14	14	na	25	48	43	34	21	15	10	138	209	28
South Africa	10	39	4	12	10	38	56	10	12	63	36	12	15	2	37	34	18	64	10	49	52	18	47	14	12	53	7	16	12	23	13	15	14	39	12	13	5	18	24	25	na	23	33	12	5	20	6	151	170	8
South Korea	15	11	3	16	8	48	47	10	4	66	24	9	15	6	59	14	16	51	16	28	41	12	99	11	14	95	14	12	11	60	12	16	10	6	10	16	5	10	33	48	23	na	27	37	26	16	8	82	176	15
Switzerland	89	105	20	56	35	181	228	59	41	250	149	53	42	23	151	67	34	111	8	58	125	15	106	23	22	45	4	19	38	38	10	26	12	4	33	5	12	32	19	43	33	27	na	12	12	55	4	273	337	1
Taiwan	7	9	2	7	4	16	31	4	5	28	19	7	5	8	25	11	4	33	7	13	16	7	85	6	12	39	25	26	6	40	16	7	5	1	8	20	6	3	20	34	12	37	12	na	24	25	7	35	98	22
Thailand	4	14	na	2	3	18	13	3	3	16	12	5	1	na	14	4	8	27	5	11	17	1	53	6	8	41	20	11	5	32	23	5	7	5	7	8	4	2	7	21	5	26	12	24	na	6	4	53	58	8
Turkey	32	41	21	17	26	63	72	53	25	115	52	36	33	37	74	34	19	31	10	38	46	12	49	13	23	52	7	40	23	30	9	21	6	8	16	34	6	22	35	15	20	16	55	25	6	na	11	123	111	10
United Arab Emirates	4	5	2	10	5	14	17	13	5	33	14	11	8	1	15	10	2	27	5	15	31	1	24	9	31	36	3	21	3	9	7	6	2	6	3	14	4	7	42	10	6	8	4	7	4	11	na	49	54	4
United Kingdom	149	222	47	142	72	339	426	121	160	662	338	103	116	55	354	183	53	410	55	178	382	39	493	39	70	237	26	101	87	113	61	46	79	59	97	49	26	65	105	138	151	82	273	35	53	123	49	na	1,043	17
United States	148	197	37	134	75	436	515	136	114	833	316	116	80	54	410	182	102	524	85	330	805	88	1,164	97	116	448	35	221	119	212	52	174	74	45	85	89	66	105	188	209	170	176	337	98	58	111	54	1,043	na	53
Vietnam	1	11	na	2	4	19	8	4	1	9	2	4	3	6	3	7	1	26	5	3	9	3	22	1	5	22	7	17	2	15	17	5	2	7	2	16	1	5	18	28	8	15	1	22	8	10	4	17	53	na

na = not applicable.

Note(s):

This table shows the number of cowritten articles by all possible pairs of countries within the top 50 producers of coronavirus-related research based on whole counting. Only articles published in 2020 are counted. Any article that had any of the following keywords in its title, abstract, or author-defined keywords was used to build the data set: "covid"; "coronavirus*"; "corona virus*"; "severe acute respiratory syndrome"; "middle east respiratory syndrome"; "SARS-CoV-2"; "spike protein*"; "mers-cov"; "nl63"; "229e"; "oc43"; "hcov"; "alphacoronavirus*"; "covid19"; "covid-19"; "SARSCoV2." Note that the * character is used to specify that the words should serve as prefixes, such that "coronavirus*" also captures articles that used "coronaviruses," for example. Articles, conference proceedings, and reviews indexed in the Scopus database were searched.

Source(s):

National Center for Science and Engineering Statistics; Science-Metrix; Elsevier, Scopus abstract and citation database, accessed May 2021.

Science and Engineering Indicators