

Expand one		
Country	Status	Number
Algeria	Patented	11620
Algeria	Patented	12927
Algeria	Pending	251388
Australia	Patented	2021243493
Australia	Pending	2022350759
Australia	Pending	2024257974
Austria	Patented	3938127
Belgium	Patented	3938127
Brazil	Patented	112021023975-8
Brazil	Published	1120240044300
Brazil	Pending	BR 11 2025 019099 7
Canada	Patented	3136701
Canada	Pending	3229427
Canada	Pending	3,284,273
Chile	Patented	67.679
Chile	Published	514-2024
Chile	Published	202502876
China	Patented	202180002908.4
China	Published	202310632463.9
China	Published	202310632434.2
China	Published	202280062621.5
China	Published	202480021060.3
Colombia	Published	NC2021/0013840
Colombia	Published	NC2024/0004232
Colombia	Published	NC2025/0012219
Czechia	Patented	3938127
Denmark	Patented	3938127
Egypt	Pending	PCT 1657/2021
Egypt	Pending	PCT 378/2024
Egypt	Pending	PCT 1360/2025
Europe	Published	23159758.4
Europe	Published	23159760.0
Europe	Published	22772919.1
Europe	Published	24718181.1
Finland	Patented	3938127
France	Patented	3938127
Germany	Patented	3938127
India	Patented	536817
India	Pending	202417013001
India	Pending	202517106128
Indonesia	Patented	P000093538
Indonesia	Published	P00202400941
Indonesia	Published	P00202402373
Indonesia	Published	P00202508759
Ireland	Patented	3938127
Italy	Patented	3938127
Japan	Patented	7177290

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Country	Status	Number
Japan	Patented	7465319
Japan	Pending	2024-518474
Japan	Pending	2025-559686
Malaysia	Patented	195381
Malaysia	Pending	PI 2024001006
Malaysia	Pending	PI 2025006433
Mexico	Patented	427947
Mexico	Published	MX/A/2025/008497
Mexico	Published	MX/A/2025/008498
Mexico	Published	MX/a/2024/003686
Mexico	Published	MX/a/2025/012455
Morocco	Patented	3938127
Netherlands	Patented	3938127
Nigeria	Pending	NG/PT/PCT/2021/5570
Nigeria	Pending	F/PT/PCT/2024/11510
Nigeria	Pending	F/PT/PCT/O/2025/18932
PCT	Published	PCT/EP2024/059597
Peru	Patented	1729-2021
Peru	Published	268-2024
Peru	Published	2176-2025
Philippines	Published	1-2021-552659
Philippines	Pending	1-2024-550469
Philippines	Pending	1-2025-552044
Poland	Patented	3938127
Portugal	Patented	3938127
Russian Federation	Patented	2779482
Russian Federation	Patented	2853502
Russian Federation	Pending	2025124227
Saudi Arabia	Patented	13532
Saudi Arabia	Pending	1120241432
Saudi Arabia	Pending	1120256897
Slovakia	Patented	3938127
South Africa	Patented	2021/07498
South Africa	Patented	2024/01719
South Africa	Pending	2025/07042
South Korea	Patented	10-2723088
South Korea	Pending	10-2024-7012634
South Korea	Pending	10-2025-7034844
Spain	Patented	3938127
Sri Lanka	Patented	21970
Sri Lanka	Pending	23011
Sri Lanka	Pending	23761
Sweden	Patented	3938127
Switzerland	Patented	3938127
Thailand	Published	2101006616
Thailand	Published	2401001874
Thailand	Pending	2501007073

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Country	Status	Number
Tunisia	Patented	3938127
Türkiye	Patented	3938127
Ukraine	Patented	127581
Ukraine	Pending	a202400856
Ukraine	Pending	a202504423
United Kingdom	Patented	3938127
United States	Published	17/491,345
United States	Published	18/999,606
United States	Published	18/690,951
United States	Pending	19/159,247
Viet Nam	Patented	49144
Viet Nam	Pending	1-2024-02534
Viet Nam	Pending	1-2025-06964

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Country	Status	Number
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Algeria	Patented	12927
Algeria	Patented	12706
Algeria	Pending	251388
Australia	Patented	2021243493
Australia	Pending	2022350759
Australia	Patented	2021221223
Australia	Pending	2024257974
Austria	Patented	3938127
Austria	Patented	3969206
Belgium	Patented	3938127
Belgium	Patented	3969206
Brazil	Patented	112021023975-8
Brazil	Published	1120240044300
Brazil	Patented	11 2022 000714 0
Brazil	Pending	BR 11 2025 019099 7
Canada	Patented	3136701
Canada	Pending	3229427
Canada	Patented	3146261
Canada	Pending	3,284,273
Chile	Patented	67.679
Chile	Published	514-2024
Chile	Patented	69.167
Chile	Published	202502876
China	Patented	202180002908.4
China	Published	202310632463.9
China	Published	202310632434.2
China	Published	202280062621.5
China	Patented	ZL202180003960.1
China	Published	202480021060.3
Colombia	Published	NC2021/0013840
Colombia	Published	NC2024/0004232
Colombia	Published	NC2022/0000436
Colombia	Published	NC2025/0012219
Czechia	Patented	3938127
Czechia	Patented	3969206
Denmark	Patented	3938127
Denmark	Patented	3969206
Egypt	Pending	PCT 1657/2021
Egypt	Pending	PCT 378/2024
Egypt	Pending	PCT28/2022
Egypt	Pending	PCT 1360/2025
Europe	Published	23159758.4
Europe	Published	23159760.0
Europe	Published	22772919.1
Europe	Published	24718181.1
Finland	Patented	3938127

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Country	Status	Number
Finland	Patented	3969206
France	Patented	3938127
France	Patented	3969206
Germany	Patented	3938127
Germany	Patented	3969206
India	Patented	536817
India	Pending	202417013001
India	Patented	479983
India	Pending	202517106128
Indonesia	Patented	P000093538
Indonesia	Published	P00202400941
Indonesia	Published	P00202402373
Indonesia	Patented	IDP000088390
Indonesia	Published	P00202508759
Ireland	Patented	3938127
Ireland	Patented	3969206
Italy	Patented	3938127
Italy	Patented	3969206
Japan	Patented	7177290
Japan	Patented	7465319
Japan	Pending	2024-518474
Japan	Patented	7201871
Japan	Pending	2025-559686
Malaysia	Patented	195381
Malaysia	Pending	PI 2024001006
Malaysia	Patented	195424
Malaysia	Pending	PI 2025006433
Mexico	Patented	427947
Mexico	Published	MX/A/2025/008497
Mexico	Published	MX/A/2025/008498
Mexico	Published	MX/a/2024/003686
Mexico	Patented	427335
Mexico	Published	MX/a/2025/012455
Morocco	Patented	3938127
Morocco	Patented	3969206
Netherlands	Patented	3938127
Netherlands	Patented	3969206
Nigeria	Pending	NG/PT/PCT/2021/5570
Nigeria	Pending	F/PT/PCT/2024/11510
Nigeria	Patented	RP NG/PT/PCT/2022/5877
Nigeria	Pending	F/PT/PCT/O/2025/18932
PCT	Published	PCT/EP2024/059597
Peru	Patented	1729-2021
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Peru	Patented	11865
Peru	Published	2176-2025
Philippines	Published	1-2021-552659

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Philippines	Pending	1-2024-550469
Philippines	Patented	1/2022/550375
Philippines	Pending	1-2025-552044
Poland	Patented	3938127
Poland	Patented	3969206
Portugal	Patented	3938127
Portugal	Patented	3969206
Russian Federation	Patented	2779482
Russian Federation	Patented	2853502
Russian Federation	Patented	2781511
Russian Federation	Pending	2025124227
Saudi Arabia	Patented	13532
Saudi Arabia	Pending	1120241432
Saudi Arabia	Patented	19122
Saudi Arabia	Pending	1120256897
Slovakia	Patented	3938127
Slovakia	Patented	3969206
South Africa	Patented	2021/07498
South Africa	Patented	2024/01719
South Africa	Patented	2022/01890
South Africa	Pending	2025/07042
South Korea	Patented	10-2723088
South Korea	Pending	10-2024-7012634
South Korea	Patented	10-2866200
South Korea	Pending	10-2025-7034844
Spain	Patented	3938127
Spain	Patented	3969206
Sri Lanka	Patented	21970
Sri Lanka	Pending	23011
Sri Lanka	Patented	22120
Sri Lanka	Pending	23761
Sweden	Patented	3938127
Sweden	Patented	3969206
Switzerland	Patented	3938127
Switzerland	Patented	3969206
Thailand	Published	2101006616
Thailand	Published	2401001874
Thailand	Published	2201000983
Thailand	Pending	2501007073
Tunisia	Patented	3938127
Tunisia	Patented	3969206
Türkiye	Patented	3938127
Türkiye	Patented	3969206
Ukraine	Patented	127581
Ukraine	Pending	a202400856
Ukraine	Patented	128993
Ukraine	Pending	a202504423

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Country	Status	Number
United Kingdom	Patented	3938127
United Kingdom	Patented	3969206
United States	Published	17/491,345
United States	Published	18/999,606
United States	Published	18/690,951
United States	Patented	11534822
United States	Pending	19/159,247
Viet Nam	Patented	49144
Viet Nam	Pending	1-2024-02534
Viet Nam	Patented	46117
Viet Nam	Pending	1-2025-06964