

Patent number	Date of grant	Title	Research unit
237982	28.06.2021	Alkyl[2-(2-hydroxyethoxy)ethyl]dimethylammonium acesulfamates, method for obtaining them and application as feeding deterrents	• Institute of Plant Protection – NRI
237289	06.04.2021	Bifunctional difenoconazole ionic liquid, method for obtaining them and application as the compounds with fungicidal and herbicidal actions	• Institute of Plant Protection – NRI
236683	08.02.2021	Bisammonium salts with cinnamate and 4-chloro-2-methylphenoxyacetate anion, their preparation and use as herbicides	• Institute of Plant Protection – NRI
236743	08.02.2021	Alkyl[2-(2-hydroxyethoxy)ethyl]dimethylammonium 4-chloro-2-methylphenoxyacetates, method for obtaining them and application as herbicides	• Institute of Plant Protection – NRI
236261	28.12.2020	Bisammonium ionic liquids with alkyl-1,X-bis-(decyldimethylammonium) cation, their preparation and application as herbicides	• Institute of Plant Protection – NRI
236065	30.11.2020	New bis-ammonium ionic liquids with alkyl-1,X-bis(bis(2-hydroxyethyl)octadec-9-en-ammonium) cation and method for obtaining them and application as food deterrents	• Institute of Plant Protection – NRI
235893	02.11.2020	Phosphonium ionic liquids with n-alkyltriphenylphosphonium cation and (4-chloro-2-methylphenoxy)acetate or (2,4-dichlorophenoxy) acetate anion, method for obtaining them and application as herbicides	• Poznan University of Technology
235894	02.11.2020	Proton ionic liquids containing herbicide phenoxy acids and hydroxylamine or its derivatives, method for obtaining them and their application as herbicides	• Poznan University of Technology
235895	02.11.2020	New herbicide ionic liquids with bicyclic cation, method for obtaining them and their application as herbicides	• Poznan University of Technology
235469	24.08.2020	Protonic salts of cyproconazole, containing inorganic anion, method for obtaining them and application as fungicides	• Institute of Plant Protection – NRI
235460	10.08.2020	Quaternary ammonium abietates with 1-alkyl-1-methylpyrrolidinium cation, method for obtaining them and application as the warehouse pest deterrent feeds	• Institute of Plant Protection – NRI
235164	01.06.2020	Herbicide double salts with alkyl[2(2-hydroxyethoxy)ethyl]dimethylammonium cation and 4-chloro-2-methoxyacetate and 3,6-dichloro-2-methoxybenzoate anions, method for obtaining them and application as plant pesticides	• Poznan University of Technology
234769	31.03.2020	N-ethyl triticonazole salts, method for obtaining them and application as fungicides	• Institute of Plant Protection – NRI
233922	31.12.2019	Ionic liquids with ascorbate anion, method for obtaining them and their application as feeding deterrents	• Institute of Plant Protection – NRI
233297	30.09.2019	N-benzyltriticonazole salts, method for obtaining them and application as fungicides	• Institute of Plant Protection – NRI
232617	31.07.2019	Derivatives of benzo[1,2,3] thiadiazole 7-carboxylic acid	• Adam Mickiewicz University Foundation • Institute of Plant Protection – NRI
232618	31.07.2019	Derivatives of benzo[1,2,3] thiadiazole 7-carboxylic acid S-methyl ester	• Adam Mickiewicz University Foundation • Institute of Plant Protection – NRI

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231925	30.04.2019	New quaternary alkoxymethyl propiconazole salts with 3,6-dichloro-2-methoxybenzoate anion, method for obtaining them and applications as the two-function plant protection fungicide and herbicide agents	• Institute of Plant Protection – NRI
231959	30.04.2019	Bis-ammonium ionic liquids with alkane-1,X-bis(decyldimethylammonium) cation and pyroglutamate anions, method for obtaining them and application as food deterrents	• Institute of Plant Protection – NRI
231526	29.03.2019	Alkyl[2-(2-hydroxyethoxy)ethyl]dimethylammonium 3,6-dichloro-2-methoxybenzoates, method for obtaining them and application as herbicides	• Institute of Plant Protection – NRI
231598	29.03.2019	Bifunctional ionic liquids with cation of cyproconazole and anion of originating from phenoxy acid, method for obtaining them and application as fungicides and herbicides	• Institute of Plant Protection – NRI
231631	29.03.2019	New sweet bis-ammonium salts with alkyl-1,X-bis(decyldimethylammonium) cation and saccharinate anions, method for obtaining them and application as food deterrents	• Institute of Plant Protection – NRI
231632	29.03.2019	Bis-ammonium salts with alkyl-1,X-bis(decyldimethylammonium) cation and acesulfamate anion, method for obtaining them and application as food deterrents	• Institute of Plant Protection – NRI
231633	29.03.2019	Application of ionic liquids with dimethyldodecyl(carboxymethyl) ammonium cation as food deterrents	• Institute of Plant Protection – NRI
231715	29.03.2019	New quaternary alkoxymethyl tebuconazol salts with 3,6-dichloro-2-methoxybenzoic anion, method for obtaining them and applications as the two-function plant protection agents	• Institute of Plant Protection – NRI
231217	28.02.2019	Plant pesticide	• Adam Mickiewicz University Foundation • Institute of Plant Protection – NRI
231262	28.02.2019	New bis-ammonium ionic liquids with alkyl-1,X-bis(bis(2-hydroxyethyl)octadec-9-en ammonium) or bis(ethane)amino-2,2'-bis(bis(2-hydroxyethyl)octadec-9-en ammonium), or butene-1,4-bis(bis(2-hydroxyethyl)octadec-9-en ammonium) cation, method for obtaining them and applications as herbicides	• Institute of Plant Protection – NRI
231373	28.02.2019	Proton ionic liquids with 1-(N-propyl-N-(2-(2,4,6-trichlorophenoxy)ethyl)carbamoyl)imidazolic cation and inorganic anion, method for obtaining them and their application as fungicides	• Institute of Plant Protection – NRI
231439	28.02.2019	Proton ionic liquids with 1-(N-propyl-N-(2-(2,4,6-trichlorophenoxy)ethyl)carbamoyl)imidazolic cation and organic anion, method for obtaining them and their application as fungicides	• Institute of Plant Protection – NRI
231440	28.02.2019	Ionic liquids with butene-1,4-bis(tributylammonium) cation and herbicide anions from phenoxy acid group, method for obtaining them and application as herbicides	• Institute of Plant Protection – NRI
231441	28.02.2019	Alkane-1,X-bis(decyldimethylammonium) dilactates, method for obtaining them and application as food deterrents	• Institute of Plant Protection – NRI
231442	28.02.2019	Ionic liquids with glycolate anion and alkane-1,X-bis(decyldimethylammonium) cation, method for obtaining them and application as food deterrents	• Institute of Plant Protection – NRI
231443	28.02.2019	Bis-ammonium ionic liquids with alkane-1,X-bis(decyldimethylammonium) cation and trioxonitrate(V) anion, method for obtaining them and application as food deterrents	• Institute of Plant Protection – NRI

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230979	31.01.2019	New bis-ammonium ionic liquids with alkane-1,X-bis(decyldimethylammonium) cation and formate anion, method for obtaining them and applications as bactericides	• Institute of Plant Protection – NRI
230983	31.01.2019	Alkyldimethyl(carboxymethyl)ammonium 2-(2,4-dichlorophenoxy)propionates, method for obtaining them and application as a herbicides	• Institute of Plant Protection – NRI
230984	31.01.2019	New organic salts with trimethylsulfonium cation, method for obtaining them and application as plant control products	• Institute of Plant Protection – NRI
230985	31.01.2019	New tertiary organic salts with trimethylsulfoxonium cation, method for obtaining them and application as herbicides	• Institute of Plant Protection – NRI
230986	31.01.2019	New ammonium ionic liquids with alkyl[2(2-hydroxyethoxy)ethyl]dimethylammonium cation and 2-(2,4-dichlorophenoxy)propionate anion and method for obtaining them and application as plant pesticides	• Institute of Plant Protection – NRI
231021	31.01.2019	2-(2,4-dichlorophenoxy)propionates of methyl alkylbetainate, method for obtaining them and application as plant protectants	• Institute of Plant Protection – NRI
231143	31.01.2019	Benzethonium phenoxyacetates, method for obtaining them and their application as herbicides	• Institute of Plant Protection – NRI
230785	31.12.2018	New ammonium ionic liquids, alkoxymethyl[3-(methacryloylamino)propyl]dimethyl-ammonium 4-chloro-2-methylphenoxy)acetates, method for producing them and their application as herbicides	• Institute of Plant Protection – NRI
230786	31.12.2018	New alkoxymethyl (2-hydroxyethyl)diethylammonium 4-chloro-2-methylphenoxyacetates and method for producing them and application as a herbicide	• Institute of Plant Protection – NRI
230659	30.11.2018	Plant protection product	• Adam Mickiewicz University Foundation • Institute of Plant Protection – NRI
230475	31.10.2018	New ionic liquids containing N-benzyl-2-(2-hydroxyethoxy)-N, N-dimethylammonium cation and method for obtaining them and application as herbicides	• Institute of Plant Protection – NRI
229929	28.09.2018	Quaternary 1-alkyl-3-methylimidazolium abietates, method for obtaining them and application as the warehouse pest deterrent feeds	• Institute of Plant Protection – NRI
229997	28.09.2018	Ammonium ionic liquids with anion of natural origin and method for producing them and their application as feeding deterrents	• Institute of Plant Protection – NRI
229792	31.08.2018	(alkoxymethyl)[2-(methacryloyloxy)ethyl]ammonium chlorides and method for obtaining them	• Institute of Plant Protection – NRI
229309	31.07.2018	Piperidinium ionic liquids with 4-(4-chloro-2-methylphenoxy)butanoate anion and method for producing them and their application as herbicides	• Institute of Plant Protection – NRI
229315	31.07.2018	New quaternary alkoxymethyl tebuconazole chlorides, method for producing them and their application as growth inhibitors of mycelium	• Institute of Plant Protection – NRI
229316	31.07.2018	Quaternary salts of diphenconazol with inorganic anion, method for obtaining them and application as fungicides	• Institute of Plant Protection – NRI
229317	31.07.2018	Protonic salts of diphenconazol with organic anion, method for obtaining them and their application as fungicides	• Institute of Plant Protection – NRI
229567	31.07.2018	New (alkoxymethyl)ethyl dimethylammonium 4-chloro-2-methylphenoxyacetates ionic liquids, method for obtaining them and their application as herbicides	• Institute of Plant Protection – NRI

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229570	31.07.2018	Alkoxyethyl bis(2-hydroxyethyl)methylammonium 4-chloro-2-methylphenoxyacetates, method for obtaining them and application as plant pesticides	• Institute of Plant Protection – NRI
229158	29.06.2018	(alkoxyethyl)[3-(methacryloylamino)propyl]dimethylammonium chlorides and method for obtaining them	• Institute of Plant Protection – NRI
229169	29.06.2018	New quaternary alkoxyethyl propiconazole chlorides, method for producing them and their application as growth inhibitors of mycopathogens	• Institute of Plant Protection – NRI
229171	29.06.2018	New ammonium ionic liquids, alkoxyethyl[3-(methacryloylamino)propyl]dimethyl-ammonium 2,4-dichlorophenoxy)acetates, method for obtaining them and their application as herbicides	• Institute of Plant Protection – NRI
228473	30.04.2018	Proton ionic liquid of propiconazole and method for producing them	• Institute of Plant Protection – NRI
228474	30.04.2018	Proton ionic liquid of tebuconazole and method for producing them	• Institute of Plant Protection – NRI
228324	30.03.2018	Protic salts of flutriafol, method for obtaining them and application as fungicides	• Institute of Plant Protection – NRI
228325	30.03.2018	New herbicidal salts with alkyl-diyl-bis(ethanoldiethylammonium) cation and with 4-chloro-2-methylphenoxyacetic or 3,6-dichloro-2-methoxybenzoic anion, and method for producing them and their applications as plant protection agents	• Poznan University of Technology • Institute of Plant Protection – NRI
228326	30.03.2018	Arginine salts of phenoxy acids and methods for obtaining them and their application as herbicides	• Poznan University of Technology • Institute of Plant Protection – NRI
228020	28.02.2018	New herbicidal bisammonium salts with alkyl-diyl-bis(ethanol-diethylammonium) cation with 4-chloro-2-methylphenoxyacetic or 3,6-dichloro-2-methoxybenzoic anion, method for obtaining them and applications as plant protection agents	• Poznan University of Technology • Institute of Plant Protection – NRI
228021	28.02.2018	Quaternary tetraalkylammonium abietates, method for obtaining them and application as the warehouse pests feed	• Institute of Plant Protection – NRI • Poznan University of Technology
228038	28.02.2018	Ionic liquids with N-[2-(2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyloxy)ethyl]-N,N,N alkyl dimethylammonium cation and (4-chloro-2-methylphenoxy)acetate anion and method for obtaining them	• Institute of Plant Protection – NRI • Poznan University of Technology
227335	30.11.2017	Ionic liquids with cation N-[2-(2,3,4,6-tetra-O-acetyl β-D-glucopyranosyloxy)ethyl]-N,N,N-alkyl dimethylammonium cation and (2,4-dichlorophenoxy)acetate anion and method for obtaining them	• Silesian University of Technology
226607	31.08.2017	Herbicidal composition	• The Institute of Heavy Organic Synthesis
226687	31.08.2017	Protic ammonium cation ionic liquids (3-hydroxypropyl)dimethylammonium and anion the herbicide and the method for their preparation	• Institute of Plant Protection – NRI
226009	30.06.2017	Proton ionic liquid of tebuconazole and propiconazole with dicamba anion and method for producing them	• Institute of Plant Protection – NRI

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226114	30.06.2017	Method for producing novel cassettes containing a multiple cloning region (MCS) and promoter and enhancer sequences for binary vectors for transient and sustained protein expression in plants	• Institute of Plant Protection – NRI
225752	31.05.2017	1-Alkylpiperidinium protonic ionic liquids with thiocyanate anion and method of obtaining them	• Institute of Plant Protection – NRI
225454	28.04.2017	A method for producing coat protein subunits of tomato necrosis virus, ToTV, by overexpression in an <i>E. coli</i> prokaryotic system	• Institute of Plant Protection – NRI