

All updated sections of Science of Synthesis from 2010 until 2023

In Volume	Section Number	Contribution Title	Author	Number of Pages	Volume Editor(s)	Chapter DOI
Volume 1						
Compounds with Transition Metal—Carbon π -Bonds and Compounds of Groups 10–8 (Ni, Pd, Pt, Co, Rh, Ir, Fe, Ru, Os)						
2013/2	1.1.5	Organometallic Complexes of Nickel	R. M. Stolley and J. Louie	61	B. J. Plietker	10.1055/sos-SD-101-00179
2012/4	1.2.5	Product Subclass 5: Palladium(III)-Containing Complexes	D. C. Powers and T. Ritter	31	B. Stoltz	10.1055/sos-SD-101-00107
2013/2	1.2.6	High-Valent Palladium in Catalysis	P. Chen, G. Liu, K. M. Engle, and J.-Q. Yu	45	B. Stoltz	10.1055/sos-SD-101-00153
2016/2	1.2.7	Radical-Based Palladium-Catalyzed Bond Constructions	Y. Li, W. Xie, and X. Jiang	112	B. Stoltz	10.1055/sos-SD-101-00568
2015/2	1.3.6	Organometallic Complexes of Platinum	A. Nomoto and A. Ogawa	19	B. J. Plietker	10.1055/sos-SD-101-00497
2012/3	1.4.5	Organometallic Complexes of Cobalt	M. Amatore, C. Aubert, M. Malacria, and M. Petit	121	B. J. Plietker	
2015/2	1.6.9	Organometallic Complexes of Iridium	H. Li and C. Mazet	38	B. J. Plietker	10.1055/sos-SD-101-00521
2014/1	1.7	Product Class 7: Organometallic Complexes of Iron	G. R. Stephenson	192	B. J. Plietker	
2014/1	1.7.8.17	Ferrocenes	G. R. Stephenson	62	B. J. Plietker	
Volume 2						
Compounds of Groups 7–3 (Mn ..., Cr ..., V ..., Ti ..., Sc ..., La ..., Ac ...)						
2011/4	2.4.12	Arene Organometallic Complexes of Chromium, Molybdenum, and Tungsten	M. Uemura	24	I. Marek	
2014/2	2.7.10	Carbonyl Complexes of Chromium, Molybdenum, and Tungsten with σ -Bonded Ligands	E. Aguilar and L. A. López	137	I. Marek	10.1055/sos-SD-102-00341
2014/2	2.8.10	Organometallic Complexes of Vanadium	O. S. Shneider and A. M. Szpilman	33	I. Marek	10.1055/sos-SD-102-00439
2011/3	2.10.18	Organometallic Complexes of Titanium: Titanium-Mediated Alkenation Reactions	T. Takeda and A. Tsubouchi	36	I. Marek	
2012/4	2.10.19	Organometallic Complexes of Titanium: Titanium-Mediated Synthesis of Cyclopropyl Derivatives	P. Bertus, F. Boeda, and M. S. M. Pearson-Long	51	I. Marek	10.1055/sos-SD-102-00229
2012/4	2.10.20	Organometallic Complexes of Titanium: Titanium-Mediated Reductive Cross-Coupling Reactions (Intermolecular Metallacycle-Mediated C-C Bond Formation)	G. C. Micalizio	65	I. Marek	
2016/2	2.11.15	C(sp ³)-H Functionalization by Allylic C-H Activation of Zirconocene Complexes	A. Vasseur and J. Bruffaerts	34	I. Marek	10.1055/sos-SD-102-00489
2016/2	2.11.16	Synthesis and Reactivity of Heteroatom-Substituted Vinylzirconocene Derivatives and Hetarylzirconocenes	J. Bruffaerts and A. Vasseur	30	I. Marek	10.1055/sos-SD-102-00509

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2011/4	2.12.15	Organometallic Complexes of Scandium, Yttrium, and the Lanthanides	P. Dissanayake, D. J. Averill, and M. J. Allen	9	I. Marek	
2013/4	2.12.16	Organometallic Complexes of Scandium, Yttrium, and the Lanthanides	J. Hannedouche	126	I. Marek	
2016/2	2.12.17	The Role of Solvents and Additives in Reactions of Samarium(II) Iodide and Related Reductants	T. V. Chciuk and R. A. Flowers, II	89	I. Marek	10.1055/sos-SD-102-00520
2021/1	2.12.18	Chiral Scandium Complexes in Asymmetric Synthesis	W. Li, X. H. Liu, and X. M. Feng	65	I. Marek	10.1055/sos-SD-102-00633
2012/4	2.13	Product Class 13: Organometallic Complexes of the Actinides	R. J. Batrice, I.-S. R. Karmel, and M. S. Eisen	113	I. Marek	
2011/4	2.14	Product Class 14: Group 4 Metallocene Complexes with Bis(trimethylsilyl)acetylene	T. Beweries and U. Rosenthal	61	I. Marek	
Volume 3						
Compounds of Groups 12 and 11 (Zn, Cd, Hg, Cu, Ag, Au)						
2014/1	3.1.11	Organometallic Complexes of Zinc	X.-F. Wu	96	N. Krause	
2014/2	3.4.8	Organometallic Complexes of Copper	B. H. Lipshutz and S. Ghorai	43	N. Krause	10.1055/sos-SD-103-00161
2018/1	3.5.13	Silver-Promoted Coupling Reactions	J.-M. Weibel, A. Blanc, and P. Pale	109	N. Krause	10.1055/sos-SD-103-00201
2011/2	3.6.11	Organometallic Complexes of Gold: Gold-Catalyzed Cycloisomerizations of Enynes	V. López-Carrillo and A. M. Echavarren	70	N. Krause	
2011/2	3.6.12	Organometallic Complexes of Gold: Gold-Catalyzed Propargylic Rearrangements	L. Zhang	30	N. Krause	
2011/2	3.6.13	Organometallic Complexes of Gold: Gold-Catalyzed Coupling Reactions	M. N. Hopkinson and V. Gouverneur	52	N. Krause	
2012/3	3.6.14	Organometallic Complexes of Gold: Asymmetric Gold-Catalyzed Transformations	M. J. Campbell and F. D. Toste	47	N. Krause	
2012/3	3.6.15	Organometallic Complexes of Gold: Gold-Catalyzed Reactions of Alkenes	T. de Haro, D. Garayalde, and C. Nevado	55	N. Krause	
2017/1	3.6.16	Gold-Catalyzed Cycloaddition Reactions	D. Qian and J. Zhang	63	N. Krause	10.1055/sos-SD-103-00177
2019/1	3.6.17	Organometallic Gold Catalysis in Combination with Enzyme, Organo-, or Transition-Metal Catalysis	I. Celik, S. Hummel and S. F. Kirsch	64	N. Krause	10.1055/sos-SD-103-00307
Volume 4						
Compounds of Group 15 (As, Sb, Bi) and Silicon Compounds						
2018/4	4.3.15	Bismuth Compounds	A. Gagnon, E. Benoit and A. Le Roch	111	M. Oestreich	10.1055/sos-SD-104-00490

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2012/1	4.4.1	Product Subclass 1: Disilenes	A. Meltzer and D. Scheschkewitz	17	M. Oestreich	
2011/3	4.4.2.5	Silenes (Update 1, 2011)	H. Ottosson and A. M. Rouf	10	M. Oestreich	
2011/3	4.4.2.6	Silenes (Update 2, 2011): Silenolates	H. Ottosson and J. Ohshita	9	M. Oestreich	
2012/4	4.4.3	Product Subclass 3: Silylenes	S. Inoue and M. Driess	83	M. Oestreich	
2015/1	4.4.4.8	Silyl Hydrides	R. W. Clark and S. L. Wiskur	58	M. Oestreich	10.1055/sos-SD-104-00274
2013/2	4.4.5	Product Subclass 5: Disilanes and Oligosilanes	C. Marschner and J. Baumgartner	31	M. Oestreich	10.1055/sos-SD-104-00081
2022/3	4.4.6	Product Subclass 6: Silyltin Reagents	H. Yoshida	21	M. Oestreich	10.1055/sos-SD-104-00776
2017/1	4.4.7	Product Subclass 7: Silylboron Reagents	L. B. Delvos and M. Oestreich	112	M. Oestreich	10.1055/sos-SD-104-00395
2013/2	4.4.9	Product Subclass 9: Silylzinc Reagents	A. Durand, I. Hemeon, and R. D. Singer	9	M. Oestreich	10.1055/sos-SD-104-00177
2017/1	4.4.11	Product Subclass 11: Silyllithium and Related Silyl Alkali Metal Reagents	C. Kleeberg	12	M. Oestreich	10.1055/sos-SD-104-00454
2017/1	4.4.19.4	Silyl Sulfides and Selenides	A. Baker and T. Wirth	14	M. Oestreich	10.1055/sos-SD-104-00365
2013/2	4.4.21.13	Silylamines	A. Kawachi	18	M. Oestreich	10.1055/sos-SD-104-00106
2013/2	4.4.22	Product Subclass 22: Silyl Phosphines	M. Hayashi	27	M. Oestreich	10.1055/sos-SD-104-00133
2022/3	4.4.23.7	Silylmethyl Anions	Y. Sumida and H. Ohmiya	29	M. Oestreich	10.1055/sos-SD-104-00799
2017/1	4.4.24.3	Silyl Cyanides	Y. Nishimoto, M. Yasuda, and A. Baba	10	M. Oestreich	10.1055/sos-SD-104-00386
2012/2	4.4.25.11	Acylsilanes	M. Nahm Garrett and J. S. Johnson	84	M. Oestreich	
2010/4	4.4.26.7	1-Diazo-1-silylalkanes	Y. Hari, T. Aoyama, and T. Shioiri	44	M. Oestreich	
2020/3	4.4.28.17	α -Silyl Alcohols, Ethers, and Amines	Q.-W. Zhang, K. An and W. He	42	M. Oestreich	10.1055/sos-SD-104-00639
2020/3	4.4.32.14	Allenylsilanes	N. Krause and N. Arisetti	69	M. Oestreich	10.1055/sos-SD-104-00689
2015/1	4.4.34.35	Vinylsilanes	E. A. Anderson and D. S. W. Lim	99	M. Oestreich	10.1055/sos-SD-104-00285
2022/3	4.4.38.14	Propargylsilanes	O. Jackowski and A. Perez-Luna	70	M. Oestreich	10.1055/sos-SD-104-00807
2020/1	4.4.40.72	Allylsilanes	K. Okamoto and K. Ohe	158	M. Oestreich	10.1055/sos-SD-104-00551
2013/2	4.4.41.8	β -Silyl Carbonyl Compounds	F. Nahra and O. Riant	18	M. Oestreich	10.1055/sos-SD-104-00164
2013/3	4.4.43	Product Subclass 43: Silylium Ions and Stabilized Silylium Ions	T. Müller	42	M. Oestreich	

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2013/3	4.4.44	Product Subclass 44: Silyl Radicals	Y. Landais	50	M. Oestreich	
2013/3	4.4.45	Product Subclass 45: Silanecarboxylic Acids and Esters	K. Igawa and K. Tomooka	7	M. Oestreich	
2014/1	4.4.46	Product Subclass 46: Siloles	J. Kobayashi and T. Kawashima	19	M. Oestreich	
2017/1	4.4.47	Product Subclass 47: Silanols	A. M. Hardman-Baldwin and A. E. Mattson	33	M. Oestreich	10.1055/sos-SD-104-00464
Volume 5						
Compounds of Group 14 (Ge, Sn, Pb)						
2010/1	5.1.1.8	Germanium Hydrides	A. C. Spivey and C.-C. Tseng	9	M. G. Moloney	
2020/3	5.1.3	Product Subclass 3: Metalated Germanium Compounds	C. Marschner	17	C. Marschner	10.1055/sos-SD-105-00260
2021/2	5.1.7	Product Subclass 7: Germylenes	N. Takeda	26	C. Marschner	10.1055/sos-SD-105-00314
2020/3	5.1.13.3	Germylamines	C. S. Weinert	10	C. Marschner	10.1055/sos-SD-105-00278
2010/1	5.1.15.2	Germanium Cyanides	A. C. Spivey and C.-C. Tseng	3	M. G. Moloney	
2010/1	5.1.16.6	Acylgermanes	A. C. Spivey and C.-C. Tseng	6	M. G. Moloney	
2010/1	5.1.18.4	α -Halo- and α -Alkoxyvinylgermanes	A. C. Spivey and C.-C. Tseng	6	M. G. Moloney	
2010/1	5.1.19.7	α -Halo-, α -Hydroxy-, α -Alkoxy-, and α -Aminoalkylgermanes	A. C. Spivey and C.-C. Tseng	7	M. G. Moloney	
2010/1	5.1.20.4	Alkynylgermanes	A. C. Spivey and C.-C. Tseng	6	M. G. Moloney	
2010/1	5.1.22.6	Aryl- and Heteroarylgermanes	A. C. Spivey and C.-C. Tseng	7	M. G. Moloney	
2010/1	5.1.23.6	Vinylgermanes	A. C. Spivey and C.-C. Tseng	9	M. G. Moloney	
2010/1	5.1.24.4	Propargyl- and Allenylgermanes	A. C. Spivey and C.-C. Tseng	3	M. G. Moloney	
2010/1	5.1.25.3	Benzylgermanes	A. C. Spivey and C.-C. Tseng	5	M. G. Moloney	
2010/1	5.1.26.6	Allylgermanes	A. C. Spivey and C.-C. Tseng	7	M. G. Moloney	
2010/1	5.1.27.4	Alkylgermanes	A. C. Spivey and C.-C. Tseng	3	M. G. Moloney	
2020/2	5.1.28	Product Subclass 28: Germales	T. Müller	29	C. Marschner	10.1055/sos-SD-105-00210
2021/1	5.1.29	Product Subclass 29: Silylated Germanes	J. A. Hlina	36	C. Marschner	10.1055/sos-SD-105-00286
2013/1	5.2.1	Product Subclass 1: Tin Hydrides	K. Tchabanenko	78	M. G. Moloney	
2022/3	5.2.3	Product Subclass 3: Metalated Tin Compounds	C. Marschner	19	C. Marschner	10.1055/sos-SD-105-00347
2022/3	5.2.7	Product Subclass 7: Stannylenes	N. Takeda	39	C. Marschner	10.1055/sos-SD-105-00362
2014/4	5.2.16.11	Tin Cyanides and Fulminates	P. B Wyatt	2	M. G. Moloney	10.1055/sos-SD-105-00196
2014/4	5.2.17.9	Acylstannanes (Including S, Se, and Te Analogues)	P. B Wyatt	8	M. G. Moloney	10.1055/sos-SD-105-00198
2014/4	5.2.18.8	Imidoystannanes, Diazoalkylstannanes, Tin Isocyanates, and Tin Isothiocyanates	P. B Wyatt	2	M. G. Moloney	10.1055/sos-SD-105-00207

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2021/2	5.2.24.10	Arylstannanes	J. Vrána and A. Růžička	32	C. Marschner	10.1055/sos-SD-105-00330
2011/2	5.2.27	Product Subclass 27: Benzylstannanes	J. S. Snaith	36	M. G. Moloney	
2011/2	5.2.28	Product Subclass 28: Allylstannanes	J. S. Snaith	72	M. G. Moloney	
2020/2	5.2.30	Product Subclass 30: Stannoles	I.-M. Ramirez y Medina, W. Kipke, J. Makow, and A. Staubitz	21	C. Marschner	10.1055/sos-SD-105-00244
2021/1	5.2.31	Product Subclass 31: Silylated Stannanes	J. A. Hlina	40	C. Marschner	10.1055/sos-SD-105-00300
Volume 6						
Boron Compounds						
2012/3	6.1.3.8	Diborane(4) Compounds	G. E. Ferris, S. N. Mlynarski, and J. P. Morken	30	D. G. Hall	
2013/3	6.1.6	Product Subclass 6: Haloborates	G. A. Molander and F. Beaumard	43	D. G. Hall	
2011/4	6.1.7.11	Hydroxyboranes	D. G. Hall and H. Zheng	39	D. G. Hall	
2012/4	6.1.28.24	Vinylboranes	M. Vaultier and M. Pucheault	43	D. G. Hall	
2021/2	6.1.29.16	α -Boryl Carbonyl Compounds	A. Trofimova, M. Sirvinskas, and A. K. Yudin	52	E. Fernández	
2012/3	6.1.35.20	Allylboranes	Yu. N. Bubnov and G. D. Kolomnikova	85	D. G. Hall	
2014/4	6.1.42	Product Subclass 42: N-Heterocyclic Carbene Borane Complexes	A.-L. Vallet and E. Lacôte	37	D. G. Hall	10.1055/sos-SD-106-00172
2021/2	6.1.43	Product Subclass 43: Azaborines (Borazines)	G. H. M. Davies and S. R. Wisniewski	112	E. Fernández	10.1055/sos-SD-106-00205
Volume 7						
Compounds of Groups 13 and 2 (Al, Ga, In, Tl, Be ... Ba)						
2010/4	7.1.2.44	Aluminum Hydrides	H. Naka and S. Saito	9	K. Ishihara	
2010/4	7.1.3.18	Aluminum Halides	H. Naka and S. Saito	14	K. Ishihara	
2011/4	7.1.4.7	Aluminum Alkoxides and Phenoxides	K. Ohmatsu and T. Ooi	18	K. Ishihara	
2011/4	7.1.7.15	Aluminum Amides	K. Ohmatsu and T. Ooi	8	K. Ishihara	
2010/4	7.1.9.11	Triorganoaluminum Compounds	M. Oishi and H. Takikawa	20	K. Ishihara	
2010/4	7.2.8	Gallium Compounds	M. Yamaguchi	12	K. Ishihara	
2010/4	7.3	Product Class 3: Indium Compounds	S. Araki and T. Hirashita	70	K. Ishihara	
2010/3	7.6.5.6	Aryl Grignard Reagents	H. Yorimitsu	9	K. Ishihara	
2010/3	7.6.10.9	Alkyl Grignard Reagents	H. Yorimitsu	19	K. Ishihara	

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2013/1	7.6.11.21	Grignard Reagents with Transition Metals	Z. Song and T. Takahashi	33	K. Ishihara	
2010/3	7.6.12.13	Magnesium Halides	M. Shimizu	29	K. Ishihara	
2010/3	7.6.13.17	Magnesium Oxide, Alkoxides, and Carboxylates	M. Shimizu	9	K. Ishihara	
2010/3	7.6.14	Product Subclass 14: Magnesium Amides	M. Shimizu	15	K. Ishihara	
2011/1	7.6.15	Product Subclass 15: Dialkyl- and Diarylmagnesiums	L. Yang and C.-J. Li	14	K. Ishihara	
2013/1	7.7	Product Class 7: Calcium Compounds	M. Hatano	44	K. Ishihara	
2010/4	7.9.5	Barium Compounds	A. Yanagisawa	14	K. Ishihara	
Volume 8						
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2019/1	8.1.6	Lithium Amides	C. T. Nieto, J. Eames, and N. M. Garrido	115	M. Yus	10.1055/sos-SD-108-00298
2010/4	8.1.28	The Catalytic Use of Lithium Compounds for Bond Formation	S. Matsunaga	14	M. Yus	
2011/4	8.1.29	Dearomatization Reactions Using Organolithiums	G. Lemière and J. Clayden	52	M. Yus	
2011/4	8.1.30	Carbolithiation of Carbon–Carbon Multiple Bonds	E. Lete and N. Sotomayor	61	M. Yus	
2012/1	8.1.31	Functionalized Organolithiums by Ring Opening of Heterocycles	M. Yus and F. Foubelo	46	M. Yus	
2012/1	8.1.32	Syntheses Mediated by α -Lithiated Epoxides and Aziridines	L. Degennaro, F. M. Perna, and S. Florio	99	M. Yus	
2012/1	8.1.33	Transition-Metal-Catalyzed Carbon–Carbon Bond Formation with Organolithiums	G. Manolikakes	12	M. Yus	
2012/2	8.1.34	Asymmetric Lithiation	J.-C. Kizirian	63	M. Yus	
2010/4	8.2.16	The Catalytic Use of Sodium Compounds for Bond Formation	T. Arai	14	M. Yus	
Volume 9						
Fully Unsaturated Small-Ring Heterocycles and Monocyclic Five-Membered Heteroarenes with One Heteroatom						
2011/2	9.9.5	Furans	X.-L. Hou, X.-S. Peng, K.-S. Yeung, and H. N. C. Wong	110	A. Fürstner	
2011/2	9.10.4	Thiophenes, Thiophene 1,1-Dioxides, and Thiophene 1-Oxides	J. Schatz and M. Seßler	73	A. Fürstner	
2010/1	9.11.4	Selenophenes	J. Schatz and M. Seßler	17	A. Fürstner	
2010/1	9.12.3	Tellurophenes	J. Schatz and M. Seßler,	9	A. Fürstner	

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2012/4	9.14.4	Phospholes	F. Mathey	24	A. Fürstner	
Volume 10						
Fused Five-Membered Heteroarenes with One Heteroatom						
2014/4	10.1	Product Class 1: Benzo[<i>b</i>]furans	H. Kwiecień	298	J. A. Joule	10.1055/sos-SD-110-00529
2018/3	10.2	Product Class 2: Benzo[<i>c</i>]furan and Its Derivatives	H. Kwiecień	220	J. A. Joule	10.1055/sos-SD-110-01581
2020/2	10.4.3	Product Class 4: Benzo[<i>b</i>]thiophenes	N. Yoshikai, C. M. Rayner, and M. A. Graham	93	J. A. Joule	10.1055/sos-SD-110-01749
2010/2	10.13	Product Class 13: Indole and Its Derivatives	J. A. Joule	486	E. J. Thomas	
2022/2	10.17	Benzo[<i>b</i>]phospholes	R. A. Aitken		J. A. Joule	10.1055/sos-SD-110-02138
2022/2	10.18	Benzo[<i>c</i>]phospholes	R. A. Aitken		J. A. Joule	10.1055/sos-SD-110-02186
2022/2	10.20	Phosphorus Analogues of Indolizines	R. A. Aitken		J. A. Joule	10.1055/sos-SD-110-02196
2014/3	10.21	Product Class 21: Five-Five-used Heteroarenes with One Heteroatom in Each Ring	S. P. Stanforth	148	J. A. Joule	10.1055/sos-SD-110-00324
2016/3	10.22.1	Product Class 22: Azaindoles and Their Derivatives	J.-Y. Mérou and B. Joseph	504	J. A. Joule	10.1055/sos-SD-110-00717
2017/1	10.22.2	Product Subclass 2: Azaindol-1-ols	J.-Y. Mérou and B. Joseph	9	J. A. Joule	10.1055/sos-SD-110-00956
2017/1	10.22.3	Product Subclass 3: 1,3-Dihydroazaindol-2-ones	J.-Y. Mérou and B. Joseph	55	J. A. Joule	10.1055/sos-SD-110-00972
2017/1	10.22.4	Product Subclass 4: 1,2-Dihydroazaindol-3-ones	J.-Y. Mérou and B. Joseph	12	J. A. Joule	10.1055/sos-SD-110-01022
2017/1	10.22.5	Product Subclass 5: 1 <i>H</i> -Azaindole-2,3-diones	J.-Y. Mérou and B. Joseph	11	J. A. Joule	10.1055/sos-SD-110-01053
2017/1	10.22.6	Product Subclass 6: Azaindol-2- and Azaindol-3-amines	J.-Y. Mérou and B. Joseph	17	J. A. Joule	10.1055/sos-SD-110-01071
2018/2	10.23	Product Class 23: Pyridol[<i>X,Y-b</i>]indoles (Carbolines)	J. A. Joule	368	J. A. Joule	10.1055/sos-SD-110-01096
2021/3	10.24	Product Class 24: Pyrido[1,2- α]indoles and Azapyrido[1,2- α]indoles	P. A. Harris	3	J. A. Joule	10.1055/sos-SD-110-01869
2021/3	10.24.1	Product Subclass 1: Pyrido[1,2- α]indoles and Related Benzo-Fused Ring Systems	P. A. Harris	80	J. A. Joule	10.1055/sos-SD-110-01870
2021/3	10.24.2	Product Subclass 2: Pyrimido[1,2- α]indoles and Related Benzo-Fused Ring Systems	P. A. Harris	24	J. A. Joule	10.1055/sos-SD-110-01955

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2011/3	27.8.2	Iminium Salt	S. Dekeukeleire, M. D'hooghe, and N. De Kimpe	27	E. Schaumann	
2010/4	27.13.3	Nitrones and Cyclic Analogues	P. Merino	79	E. Schaumann	
2011/4	27.15	Product Class 15: Oximes	S. Chiba and K. Narasaka	55	E. Schaumann	

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2012/3	27.16.3	Azines	A. Nodzewska and R. Łazny	19	E. Schaumann	
2012/3	27.17.5	Hydrazones	R. Łazny and A. Nodzewska	55	E. Schaumann	
2012/3	27.18.3	Hydrazonium Compounds	A. Nodzewska and R. Łazny	4	E. Schaumann	
2017/1	27.19.5	Azomethine Imines	I. Atodiresei and M. Rueping	22	E. Schaumann	10.1055/sos-SD-127-00429
2014/3	27.21.3	Diazo Compounds	H. Heydt	30	E. Schaumann	10.1055/sos-SD-127-00392
2012/1	27.25	Product Class 25: <i>N</i> -Sulfanyl-, <i>N</i> -Selanyl-, and <i>N</i> -Tellanylimines, and Their Oxidation Derivatives	F. Chemla, F. Ferreira, and A. Pérez-Luna	83	E. Schaumann	
2014/2	27.26	Product Class 26: Thioaldehyde and Thioketone <i>S</i> -Sulfides (Thiosulfines)	G. Mloston and H. Heimgartner	9	E. Schaumann	10.1055/sos-SD-127-00376
2021/2	27.27	Product Class 27: 1,2-Diimines	R. Isovitsch	24	G. Koch	10.1055/sos-SD-127-00451
2021/2	27.28	Product Class 28: β -Diketimines (1,3-Diimines)	K. Chand, Umesh, D. P. Dorairaj, and S. C. N. Hsu	44	G. Koch	10.1055/sos-SD-127-00466

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2010/3	29.6.2	Acyclic and Semicyclic O/O Acetals	L. S. Fowler and A. Sutherland	30	D. J. Procter	
2010/3	29.7.3	1,3-Dioxetanes and 1,3-Dioxolanes	D. Carbery	21	D. J. Procter	
2010/3	29.9.2	Spiroketals	E. A. Anderson and B. Gockel	56	D. J. Procter	
2010/3	29.16	Product Class 16: Glycosyl Oxygen Compounds (Di- and Oligosaccharides)	A. V. Demchenko and C. De Meo	187	D. J. Procter	
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2010/3	29.18	Product Class 18: 1,1-Diacyloxy Compounds	L. H. S. Smith, S. C. Coote, and D. J. Procter	22	D. J. Procter	

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Acetals: O/N, S/S, S/N, and N/N and Higher Heteroatom Analogues

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2019/2	30.1.2.3	Cyclic <i>O,N</i> -Acetals	S. Minakata and Y. Takeda	8	T. Murai	10.1055/sos-SD-130-00288
2016/2	30.1.3	Carbohydrate Derivatives (Including Nucleosides)	T. Nokami	27	T. Murai	10.1055/sos-SD-130-00001
2016/2	30.2.3	<i>O,P</i> -Acetals	K. Murai and H. Fujioka	33	T. Murai	10.1055/sos-SD-130-00025
2018/2	30.3	Product Class 3: <i>S,S</i> -Acetalst	T.-Y. Luh and M.-k. Leung	13	T. Murai	10.1055/sos-SD-130-00169
2016/2	30.3.1.3	Acyclic <i>S,S</i> -Acetals	A. Tsubouchi	22	T. Murai	10.1055/sos-SD-130-00037

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2018/2	30.3.3.2	1,3-Dithiolanes	T.-Y. Luh, M.-k. Leung, and C.-M. Chou	76	T. Murai	10.1055/sos-SD-130-00179
2018/3	30.3.4.3	1,3-Dithianes	Y. Saikawa and M. Nakata	21	T. Murai	10.1055/sos-SD-130-00243
2018/3	30.3.5.3	1,3-Dithiepanes	Y. Saikawa and M. Nakata	3	T. Murai	10.1055/sos-SD-130-00262
2016/2	30.3.6.3	Acyclic and Cyclic <i>S,S</i> -Acetal <i>S</i> -Oxides and <i>S,Sc</i> -Dioxides	A. Ishii	27	T. Murai	10.1055/sos-SD-130-00054
2019/2	30.3.7.11	Deprotection of <i>S,S</i> -Acetals	K. Sugamata and T. Sasamori	19	T. Murai	10.1055/sos-SD-130-00297
2018/3	30.4.3	<i>S,N</i> -Acetals (α -Amino Sulfur Derivatives)	Y. Mutoh	14	T. Murai	10.1055/sos-SD-130-00265
2016/2	30.5.6	Selenium- and Tellurium-Containing Acetals	M. Yoshimatsu	28	T. Murai	10.1055/sos-SD-130-00072
2018/3	30.6.3	<i>N,N</i> -Acetals (Aminals)	Y. Mutoh	10	T. Murai	10.1055/sos-SD-130-00273
2016/2	30.7.3	<i>N,P</i> - and <i>P,P</i> -Acetals	T. Kimura	56	T. Murai	10.1055/sos-SD-130-00105

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2015/1	31.1.2	Fluoroarenes	A. Harsanyi and G. Sandford	16	C. A. Ramsden	10.1055/sos-SD-131-00054
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2015/1	31.3.3	Bromoarenes	S. P. Stanforth	26	C. A. Ramsden	10.1055/sos-SD-131-00094
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2018/1	31.5.1.1.18	Synthesis of Phenols and Phenolates by Substitution	C. González-Bello	21	C. A. Ramsden	10.1055/sos-SD-131-00281
2018/1	31.5.1.2.7	Synthesis of Phenols and Phenolates by Elimination	C. González-Bello	6	C. A. Ramsden	10.1055/sos-SD-131-00289
2018/1	31.5.1.3.6	Synthesis of Phenols and Phenolates by Rearrangement	C. González-Bello	5	C. A. Ramsden	10.1055/sos-SD-131-00292
2018/1	31.5.1.4.3	Synthesis of Phenols and Phenolates with Retention of the Functional Group	C. González-Bello	9	C. A. Ramsden	10.1055/sos-SD-131-00296
2018/3	31.5.1.5.12	Synthesis of Phenols from Nonaromatic Precursors	C. González-Bello	35	C. A. Ramsden	10.1055/sos-SD-131-00400

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2018/1	32.2.6	Monofunctionalized Allenes	S. K. Hashmi	50	H.-U. Reissig	10.1055/sos-SD-132-00139
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2021/1	32.3.7.2	1-(Organochalcogeno)-2-(organooxy)alkenes	J. Grimmer, S.-C. Krieg and G. Manolikakes	20	H.-U. Reissig	10.1055/sos-SD-132-00285
2021/1	32.3.8.2	1-Nitrogen-Functionalized 2-(Organooxy)alkenes	J. Grimmer, S.-C. Krieg and G. Manolikakes	20	H.-U. Reissig	10.1055/sos-SD-132-00311
2021/1	32.3.9.2	1-Phosphorus-Functionalized 2-(Organooxy)alkenes	J. Grimmer, S.-C. Krieg and G. Manolikakes	8	H.-U. Reissig	10.1055/sos-SD-132-00326
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2018/4	33.1.4.2	Alk-1-enesulfinic Acids and Derivatives	R. Kawęcki	4	J. Drabowicz	10.1055/sos-SD-133-00133
2018/4	33.1.5.2	Alk-1-enyl Sulfoxides, Sulfimides, and Related Compounds	R. Kawęcki	23	J. Drabowicz	10.1055/sos-SD-133-00139
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2019/2	33.1.14.3	3,4-Dihydro-2H-thiopyrans and Derivatives	D. Witt	50	J. Drabowicz	10.1055/sos-SD-133-00273
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2015/2	33.5.7.2	1,2-Dihydrophosphetes and Derivatives	Gy. Keglevich and A. Grün	5	J. Drabowicz	10.1055/sos-SD-133-00017
2015/2	33.5.8.2	2,3-Dihydro-1H-phospholes and Derivatives	Gy. Keglevich and A. Grün	13	J. Drabowicz	10.1055/sos-SD-133-00023
2015/2	33.5.9.2	1,2,3,4-Tetrahydrophosphinines and Derivatives	Gy. Keglevich and A. Grün	2	J. Drabowicz	10.1055/sos-SD-133-00034
2015/2	33.5.10.2	1,4-Dihydrophosphinines and Derivatives	Gy. Keglevich and A. Grün	2	J. Drabowicz	10.1055/sos-SD-133-00037

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2012/2	34.1.1.7	Synthesis by Substitution of Hydrogen	G. Sandford	7	E. M. Carreira	10.1055/sos-SD-134-00001
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2016/1	34.1.3.4	Synthesis by Substitution of Carbon Functionalities	J. Desroches and J.-F. Paquin	19	J.-F. Paquin	10.1055/sos-SD-134-00027
2017/2	34.1.4.1	Synthesis of Fluoroalkanes by Substitution of a Halogen	T. P. Lequeux	20	J.-F. Paquin	10.1055/sos-SD-134-00082
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2016/1	34.1.4.2.9	Synthesis by Substitution of Hydroxy Groups in Alcohols	M. Vandamme and J.-F. Paquin	14	J.-F. Paquin	10.1055/sos-SD-134-00039
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2017/2	34.4.2	Fluorocyclobutanes	P. Jubault, T. Poisson, and X. Pannecoucke	12	J.-F. Paquin	10.1055/sos-SD-134-00169
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2014/2	35.1.1.3.5	Synthesis by Substitution of Carbon Functionalities	P. Margaretha	9	T. Wirth	10.1055/sos-SD-135-00001
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2017/1	35.2.4.2.3	Synthesis of Allylic Bromides by Substitution of σ -Bonded Heteroatoms	M. Braun	4	T. Wirth	10.1055/sos-SD-135-00232
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2015/2	35.3.1.1.6	Synthesis by Substitution of Hydrogen	J. Iskra	4	T. Wirth	10.1055/sos-SD-135-00098
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2015/2	35.3.1.8.7	Synthesis by Addition to π -Type C—C Bonds	U. Hennecke	11	T. Wirth	10.1055/sos-SD-135-00141
2015/2	35.3.5.1.5	Synthesis by Addition across C=C Bonds	U. Hennecke	17	T. Wirth	10.1055/sos-SD-135-00155
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2011/1	39.17.3	Acyclic Dialkyl Selenoxides and Derivatives	T. Shimizu	10	J. Drabowicz	
2013/2	39.18.2	Alkaneselenols	C. Santi	15	J. Drabowicz	10.1055/sos-SD-139-00193
2013/2	39.19.1.2	Alkaneselenolates of Group 1, 2, and 13–15 Metals	C. Santi	19	J. Drabowicz	10.1055/sos-SD-139-00210
2014/3	39.19.2.3	Alkaneselenolates of Group 3–12 Metals	A. Polo and J. Real	12	J. Drabowicz	10.1055/sos-SD-139-00247
2014/3	39.26.6.2	Cyclic Alkaneselenolates of Group 3–12 Metals	A. Polo and J. Real	10	J. Drabowicz	10.1055/sos-SD-139-00260
2014/3	39.32.2.2	Alkanetellurolates of Group 3–12 Metals	A. Polo and J. Real	8	J. Drabowicz	10.1055/sos-SD-139-00266
2011/3	39.39.1	Product Subclass 1: Cyclic Alkanetelluronic Acid Derivatives	T. Kimura	2	J. Drabowicz	
2014/3	39.39.6.2	Cyclic Alkanetellurolates of Group 3–12 Metals	A. Polo and J. Real	4	J. Drabowicz	10.1055/sos-SD-139-00277

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Amines and Ammonium Salts

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