Journal of Fluorine Chemistry

Facile synthesis of fluoroalkylated quinolones using fluoroalk-2ynoates as fluorinated building blocks

Jun Wu, Hui Zhang, Xiao Ding, Xuefei Tan, Hong C. Shen, Jie Chen, Weimin He, Hongmei Deng, Liping Song, Weiguo Cao

J. Fluor. Chem., 2019, 220, 54-60.

26 examples yield up to 90%

Journal of Organic Chemistry

Copper-Catalyzed N-Formylation of Amines through Tandem Amination/Hydrolysis/Decarboxylation Reaction of Ethyl Bromodifluoroacetate

Xiao-Fang Li, Xing-Guo Zhang, Fan Chen, and Xiao-Hong Zhang

J. Org. Chem., 2018, 83, 12815-12821

24 examples yield up to 85%

Synthesis of CMe₂CF₃-Containing Heteroarenes via Tandem 1,1-Dimethyltrifluoroethylation and Cyclization of Isonitriles

Wen-Qiang Shi, Shuai Liu, Chen-Ze Wang, Yangen Huang, Feng-Ling Qing, and Xiu-Hua Xu

J. Org. Chem., 2018, 83, 15236-15244

Radical Anions of Aromatic Carbonitriles as Reagents for Arylation of Fluorinated Benzonitriles

Roman Yu. Peshkov, Chunyan Wang, Elena V. Panteleeva, Tatyana V. Rybalova, and Evgeny V. Tretyakov

J. Org. Chem., 2019, 84, 963-972

Ligand-Less Iron-Catalyzed Aromatic Cross-Coupling Difluoromethylation of Grignard Reagents with Difluoroiodomethane

Hirotaka Motohashi, Miki Kato and Koichi Mikami

J. Org. Chem., 2019, 84, 6483-6490

24 examples yield up to 94%

Cp*Rh(III)-Catalyzed C-H Bond Difluorovinylation of Indoles with α,α -Difluorovinyl Tosylate

Lisheng Yang, Chunpu Li, Dechuan Wang and Hong Liu

J. Org. Chem., 2019, 84, 7320-7330

New Journal of Chemistry

Hydrodefluorination of functionalized fluoroaromatics with triethylphosphine: a theoretical and experimental study

Aldo A. Facundo, Alma Arévalo, Gabriela Fundora-Galano, Marcos Flores-Álamo, Emilio Orgaz and Juventino J. Garciá

New J. Chem., 2019, 43, 6897-6908

Organic Chemistry Frontiers

Trifluoromethylation of α -diazoesters and α -diazoketones with fluoroform-derived CuCF₃: synergistic effects of co-solvent and pyridine as a promoter

Qiao Ma and Gavin Chit Tsui

Org. Chem. Front., 2019, 6, 27-31

$$R^{1}$$
 R^{2}
 R^{2

19 examples yield up to 91%

yield up to 100%

Photoinduced synthesis of α-trifluoromethylated ketones through the oxidative trifluoromethylation of styrenes using CF₃SO₂Na as a trifluoromethyl reagent without an external photoredox catalyst

Lulu Zhao, Pinhua Li, Hao Zhang and Lei Wang

Org. Chem. Front., 2019, 6, 87-93

$$R^{1}$$
 + $CF_{3}SO_{2}Na$ $hv (380-385 nm)$ acetone, r.t., air, 18 h

20 examples yield up to 85%

Nickel-catalyzed C-H bond trifluoromethylation of 8-aminoquinoline derivatives by acyl-directed functionalization

Xiaochong Liu, Guijie Mao, Jingyi Qiao, Chunzhao Xu, Hao Liu, Junjie Ma, Zhizhong Sun and Wenyi Chu

Org. Chem. Front., 2019, 6, 1189-1193

Organic Letters

Room Temperature Deoxyfluorination of Benzaldehydes and α-Ketoesters with Sulfuryl Fluoride and Tetramethylammonium Fluoride

Patrick R. Melvin, Devin M. Ferguson, Sydonie D. Schimler, Douglas C. Bland, and Melanie S. Sanford

Org. Lett., 2019, 21, 1350-1353

28 examples yield up to 97%

Pd-Catalyzed Decarboxylative Cyclization of Trifluoromethyl Vinyl Benzoxazinanones with Sulfur Ylides: Access to Trifluoromethyl Dihydroquinolines

Nagender Punna, Kyosuke Harada, Jun Zhou, and Norio Shibata

Org. Lett., 2019, 21, 1515-1520

Trifluoromethylation of Unactivated Alkenes with Me₃SiCF₃ and N-lodosuccinimide

Xinkan Yang and Gavin Chit Tsui

Org. Lett., 2019, 21, 1521-1525

Siladifluoromethylation and Deoxo-trifluoromethylation of P^V-H Compounds with TMSCF₃: Route to $P^V-CF_2^-$ Transfer Reagents and $P-CF_3$ Compounds

Vinayak Krishnamurti, Colby Barrett, and G. K. Surya Prakash

Org. Lett., 2019, 21, 1526-1529

Metal-Free Synthesis of 2-Fluoroalkylated Quinolines Using Polyfluoroalkanoic Acids as Direct Fluorine Sources

Jiang Nan, Yan Hu, Pu Chen, and Yangmin Ma

Org. Lett., 2019, 21, 1984-1988

Diastereoselective Synthesis of CF₃-Substituted Spiroisochromans by [1,5]-Hydride Shift/Cyclization/Intramolecular Friedel-Crafts Reaction Sequence

Risa Tamura, Eriko Kitamura, Ryosuke Tsutsumi, Masahiro Yamanaka, Takahiko Akiyama, and Keiji Mori

Org. Lett., 2019, 21, 2383-2387

gem-Difluoroallylation of Aryl Diazoesters via Catalyst-Free, BlueLight-Mediated Formal Doyle-Kirmse Reaction

Jianhua Yang, Jiazhuang Wang, Hongtai Huang, Guiping Qin, Yubo Jiang and Tiebo Xiao

Org. Lett., 2019, 21, 2654-2657

$$R^2$$
 N_2 + R^4
 N_2 + R^4
 N_3
 N_4
 N_4
 N_5
 N_4
 N_5
 N_5
 N_6
 N_6

Visible-Light-Promoted [5 + 1] Annulation Initiated by Electron-Donor-Acceptor Complexes: Synthesis of Perfluoroalkyl-s-Triazines

Rui Wang, Lili Wang, Qin Xu, Bao-Yi Ren and Fushun Liang

Org. Lett., 2019, 21, 3072-3076

NH NH · HCI
$$R^2R^1N$$
 NR $^3R^4$ + C_4F_9 - I N visible light open air N open air N NaOH (5.1 equiv) N NR $^3R^4$ DMF, rt

12 examples yield up to 87%

Electrochemical Oxidative Aryl(alkyl)trifluoromethylation of Allyl Alcohols via 1,2-Migration

Zhipeng Guan, Huamin Wang, Yange Huang, Yunkun Wang, Shengchun Wang and Aiwen Lei

Org. Lett., 2019, 21, 4619-4622

Organometallics

Selective Continuous Flow Iodination Guided by Direct Spectroscopic Observation of Equilibrating Aryl Lithium Regioisomers

Anna L. Dunn, David C. Leitch, Michel Journet, Michael Martin, Elie A. Tabet, Neil R. Curtis, Glynn Williams, Charles Goss, Tony Shaw, Bernie O'Hare, Charles Wade, Matthew A. Toczko, and Peng Liu

Organometallics, 2019, 38, 129-137

15 examples yield up to 75%