



Showcasing research from Professor Kalyan K. Sadhu's laboratory, Department of Chemistry, Indian Institute of Technology Roorkee (IIT Roorkee), Roorkee-247667, Uttarakhand, India.

One pot oxygen mediated syntheses of stable radicals

The stability of radicals has always been in question in the presence of O_2 , let alone their syntheses. In this decade, O_2 mediated syntheses of few radical cations have been reported. In this work, syntheses of three differently substituted stable neutral radicals have been reported for the first time using O_2 as an electron acceptor. Cyclic radical having three $C(sp^2)$ atoms around the unpaired spin shows the highest thermal stability in air. Radical center substituted with two $C(sp^2)$ atoms and one H-atom displays distinct NMR patterns in $DMSO-d_6$ and D_2O .

As featured in:



See Kalyan K. Sadhu *et al.*,
Mater. Adv., 2024, 5, 1523.