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Mechano-chemical synthesis and analysis of zinc and pyrogallol [4] arene complex under solvent-free and ambient conditions

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Herein, we report a solvent-free approach for chemical synthesis which focuses on mechanochemically forming products from reactants under ambient conditions. With this protocol, several organo-metallic complexes or frameworks of zinc and pyrogallol[4]arenes were synthesized and analyzed with MALDI-TOF mass spectrometry combined with solid state carbon thirteen Nuclear Magnetic Resonance (^{13}C NMR). This synthetic approach is in line with the synthetic methodology of green chemistry which focuses on eco-friendly chemical synthesis or synthetic routes.