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Novel Sr-carbonates synthesized at moderate pressures and temperatures

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We synthesized novel Sr-carbonates at moderate pressures and temperatures in a laser heated diamond anvil cell. We obtained the sp^3 -carbonates $Sr_2[CO_4]$ and $Sr_3[CO_4]O$ with isolated CO_4 tetrahedra and both phases can be recovered at ambient condition. We also synthesized $Sr[C_2O_5]$ by a reaction of $Sr[CO_3]$ with CO_2 which is the first inorganic pyrocarbonate salt.

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