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# Novel Room-Temperature Synthesis of MIL-100(Fe) and its Excellent Adsorption Performances for Separation of Light Hydrocarbons

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## Highlights

- A novel room-temperature synthesis method for preparing MIL-100(Fe) was proposed.
- The use of oxidizing radicals promoted room-temperature synthesis of MIL-100(Fe)
- Room-temperature synthesis is more energy-saving compared to conventional methods
- Its C<sub>3</sub>H<sub>8</sub> and C<sub>2</sub>H<sub>6</sub> capacities reached 6.78 and 2.22mmol/g respectively at 298K.

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