

reacts with the donor, CH₃OH, and acceptor, O₂, on a time scale of microseconds or faster. H atom transfer of HOO and CH₂-OH radicals to yield CH₂=O and H₂O₂ is only a minor reaction path.

Time-resolved rapid-scan and step-scan FT-IR methods afford a new level of mechanistic insight into photoreactions inside molecular sieves. Elucidation of elementary reaction steps from primary intermediates to stable products is essential for identifying transition metal molecular sieves for desired photochemical transformations.

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