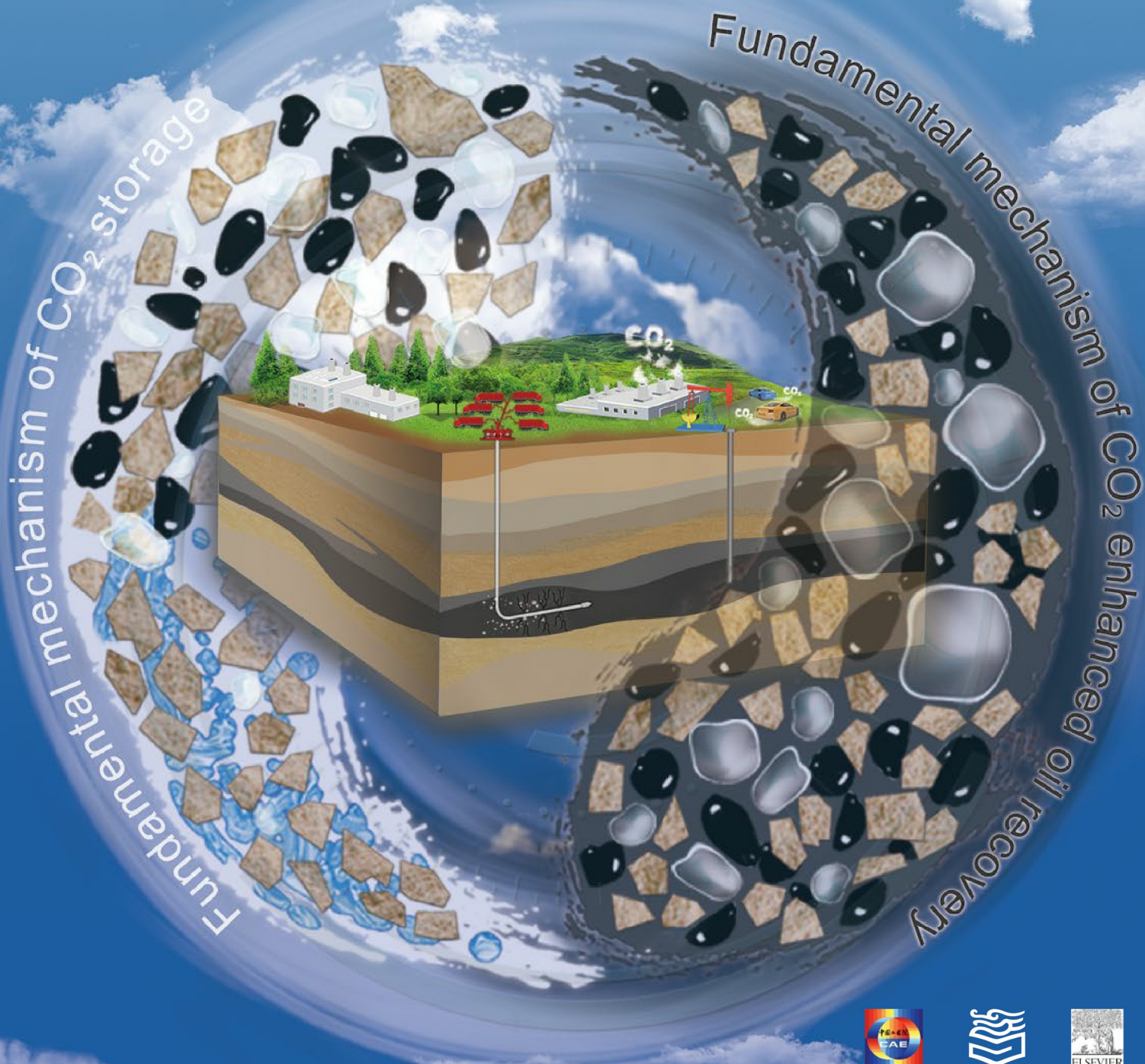


# Engineering

November 2022

## Unconventional and Intelligent Oil & Gas Engineering

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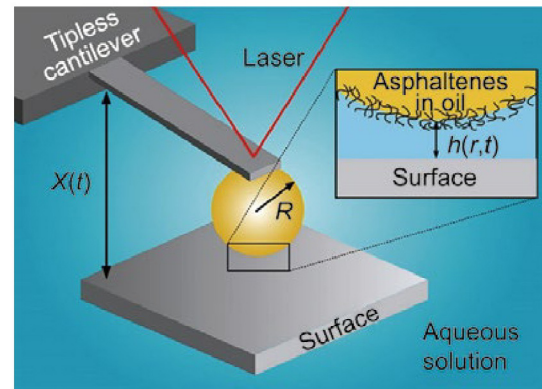
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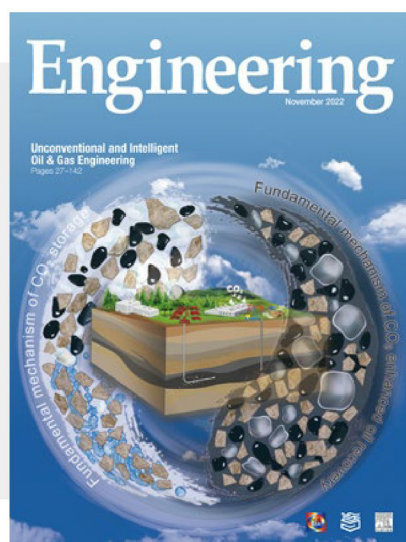
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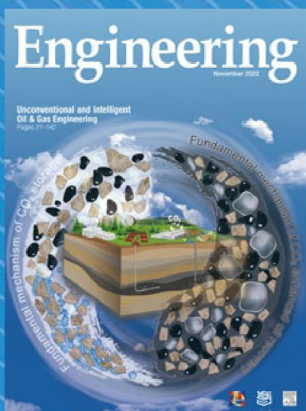
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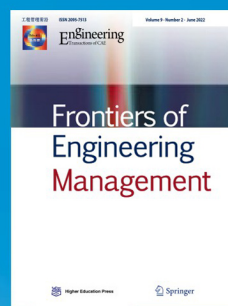
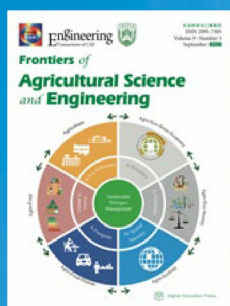
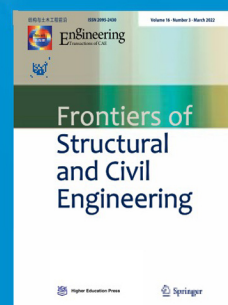
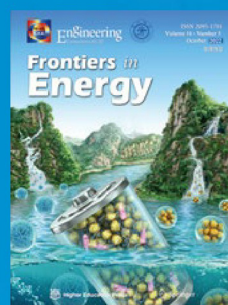
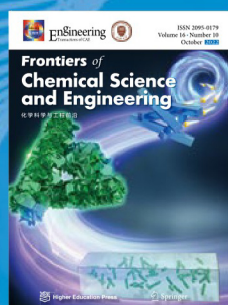
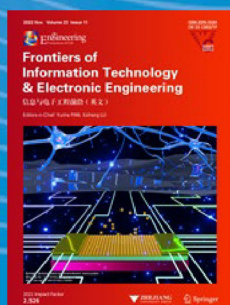
## ON THE COVER

This image presents a new generation of CO<sub>2</sub> enhanced oil recovery (EOR): namely, storage-driven CO<sub>2</sub> EOR, which aims to realize net-zero or even negative CO<sub>2</sub> emissions by sequestering CO<sub>2</sub> in oil reservoirs while maximizing oil recovery. Within the framework of this approach, the CO<sub>2</sub> EOR and storage in an oil reservoir can be harmonious and synergistic, or they can conflict with each other. Thus, there is an urgent need for the development of new advanced technologies that can weaken the antagonism between EOR and storage and improve their synergy. The relationship between the two is much like Tai chi. The storage-driven CO<sub>2</sub> EOR method provides a feasible basis for a paradigm shift in hydrocarbon recovery from a massive-emission process to a net-zero or negative emission process that significantly reduces CO<sub>2</sub> emissions while increasing the economic benefits of CO<sub>2</sub> EOR.





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