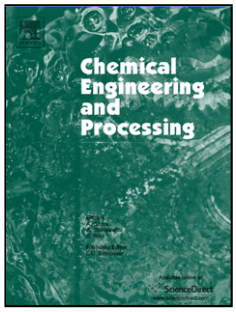

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Processing of mixed-plastic waste to fuel oil, carbon nanotubes and hydrogen using multi–core reactor

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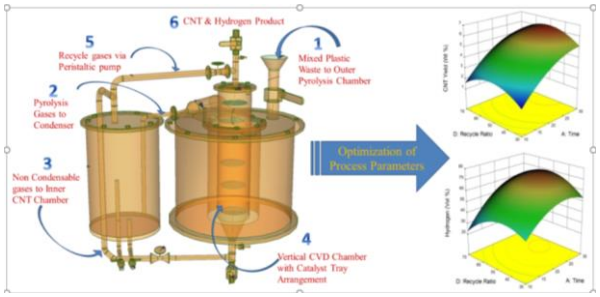
Graphical abstract



Highlights

- A novel multi-core reactor to produce H_2 & CNTs from mixed plastic waste is proposed
- H_2 of 78 vol. % and 6.63 g CNTs would yield using 60 g plastic and 1 g of catalyst
- Recycle ratio of 50 % has considerable effect over H_2 & other product gases
- HRTEM analysis reveals that above 70 % recycle ratio produces bamboo structured CNTs

Abstract