Supporting Information

Development of a hydroxyapatite based composite: Sr-doped HAp/NiO proven to be an efficient nanocatalyst for photocatalytic degradation of organic dye and photoreduction of Cr (VI)

Linkon Bharali, Susmita Sahu, Juri Kalita, Siddhartha Sankar Dhar[*a]

[a] Department of Chemistry, National Institute of Technology Silchar, Cachar, Assam-788010, India.

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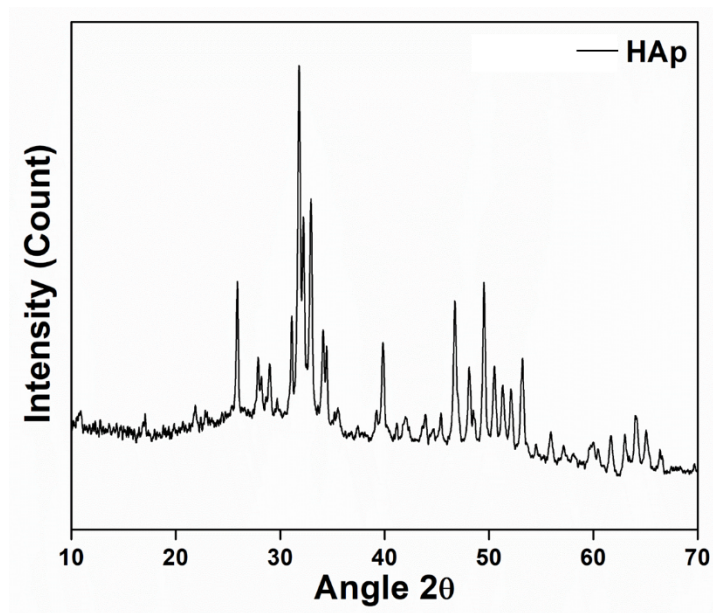
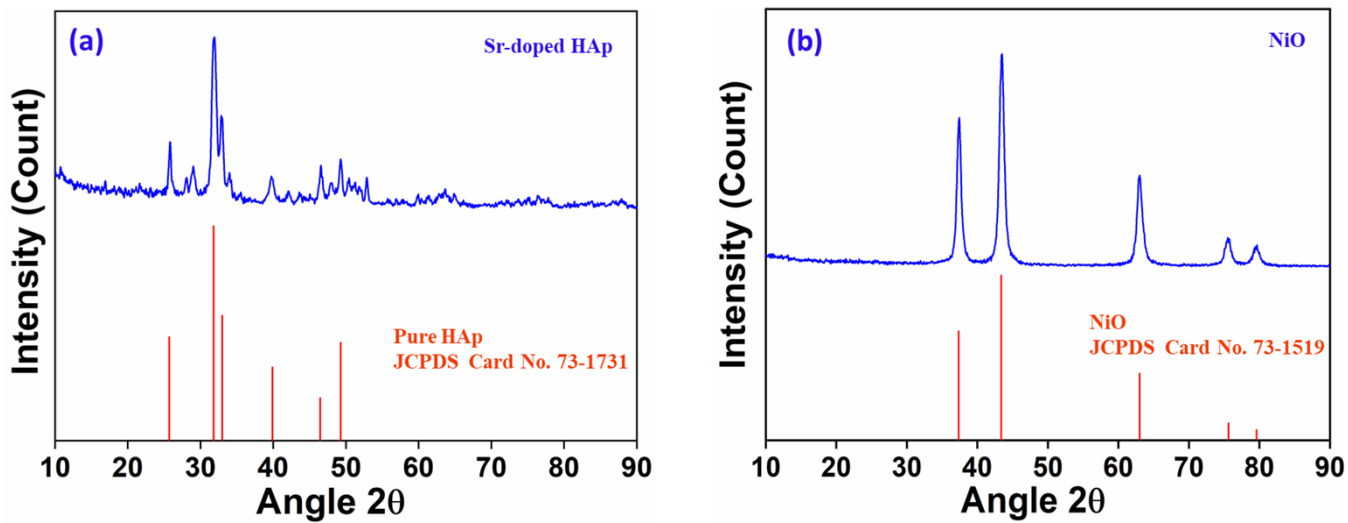**Figure S1.**PXRD spectrum of pure HAp

Figure S2. PXRD Spectrum of (a) prepared Sr-doped HAp compared with standard PXRD spectrum of Pure HAp and

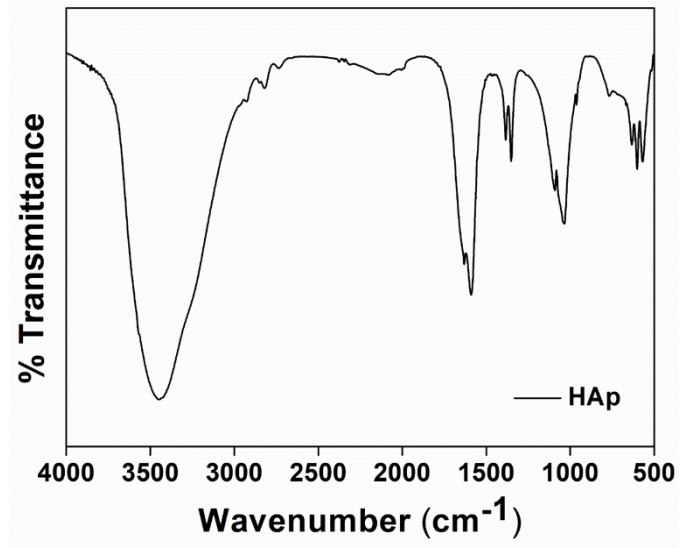(b) prepared NiO compared with standard PXRD spectrum of Pure NiO
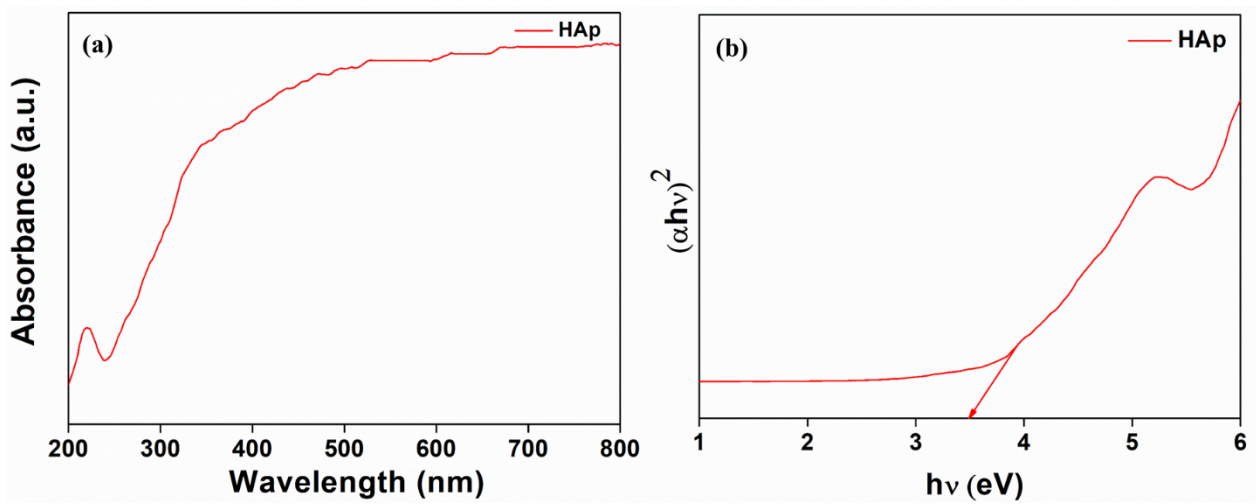
Figure S3. FT-IR spectrum of pure HAp

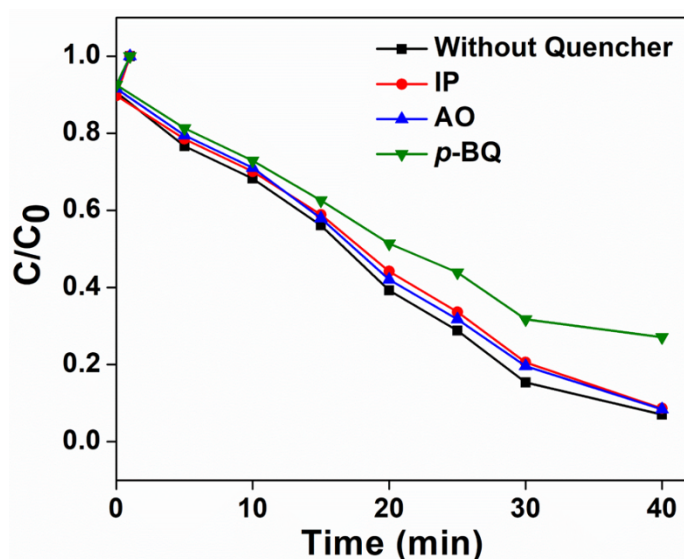**Figure S4.** UV-DRS spectrum and bandgap energy of pure HAp

Figure S5. Effect of various quenchers in the photodegradation process
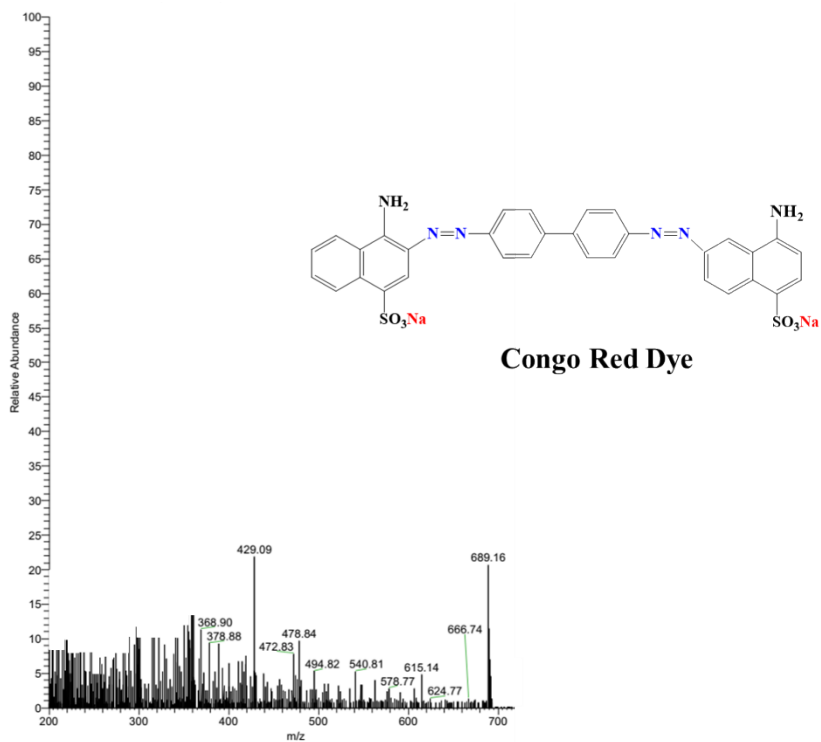

Congo Red Dye

Figure S6. HR LC-MS spectrum of CR dye solution before degradation
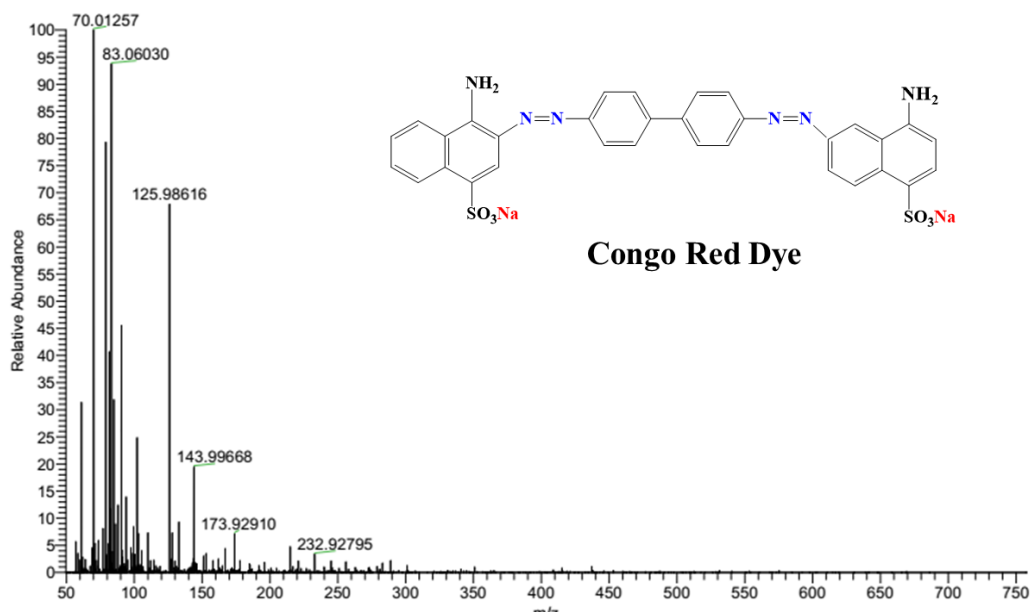
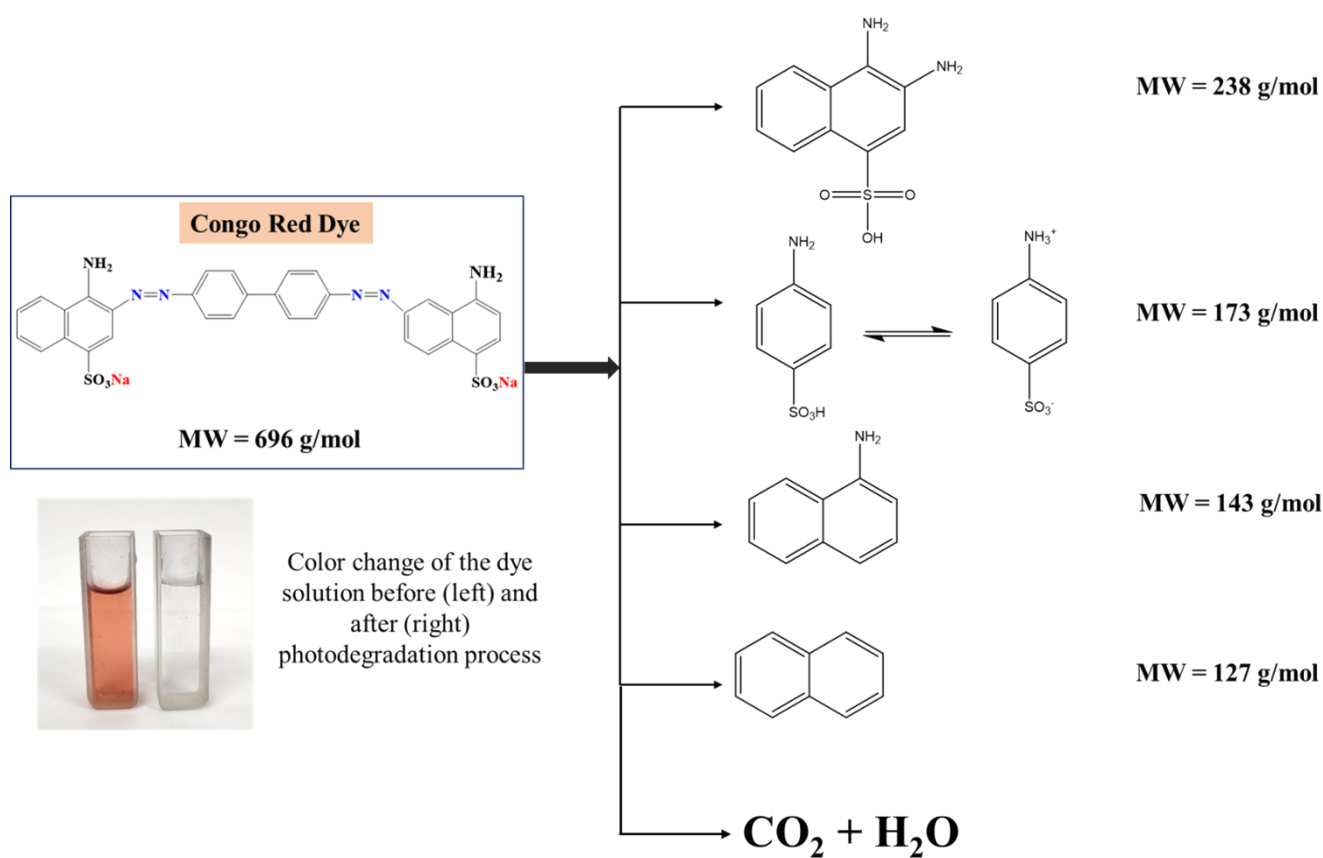**Figure S7.** HR LC-MS spectrum of CR dye solution after degradation

Figure S8. Some major molecular fragments of the CR dye obtained from HR LC-MS spectrum recorded after photodegradation
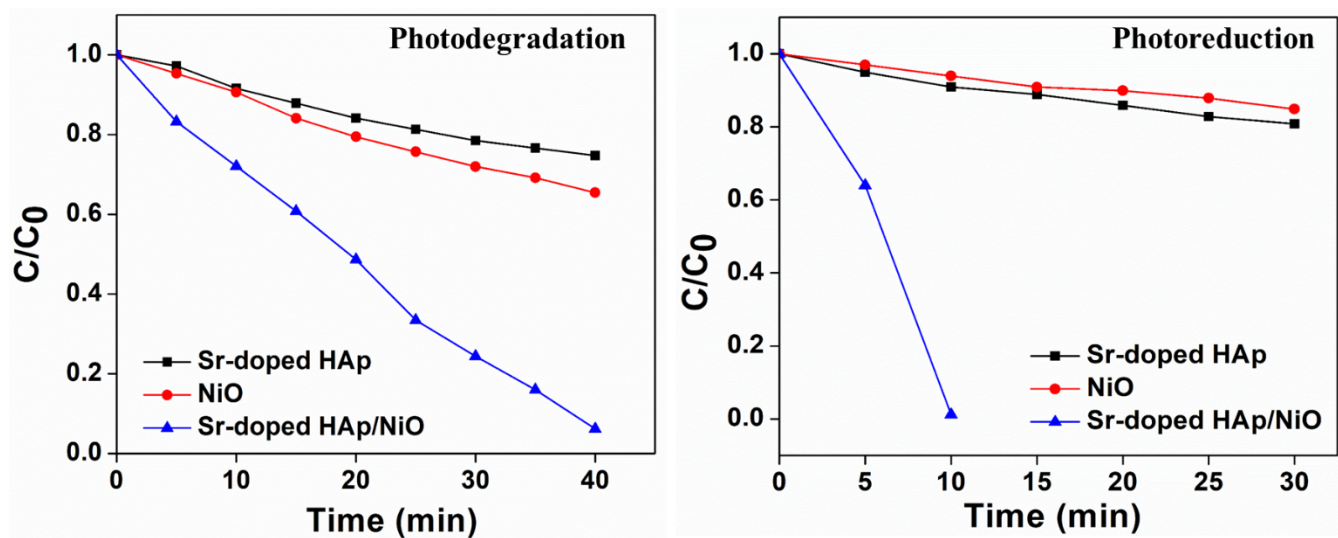
Figure S9. Effect of photocatalytic performance of each components of the prepared nanocatalyst
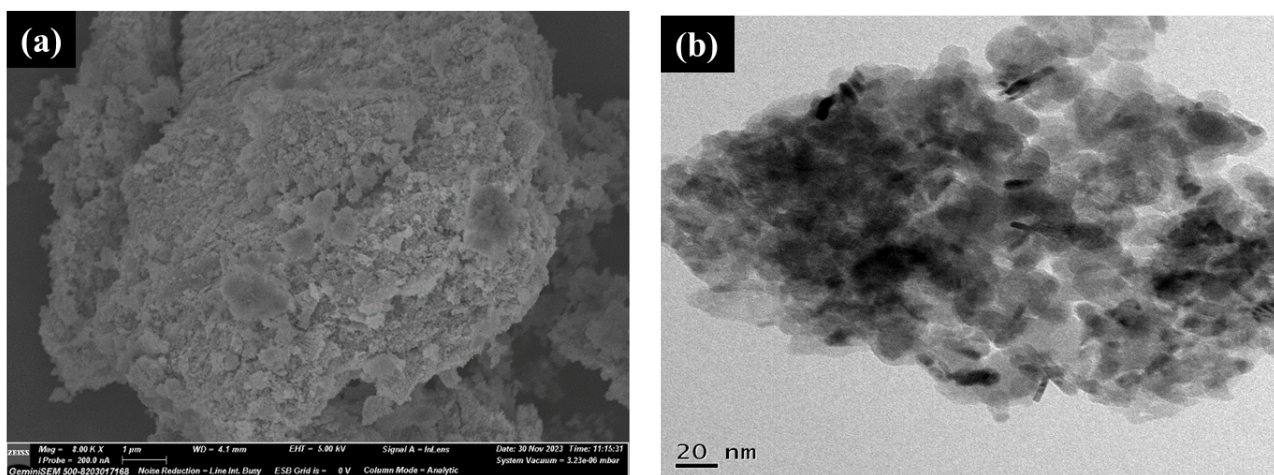

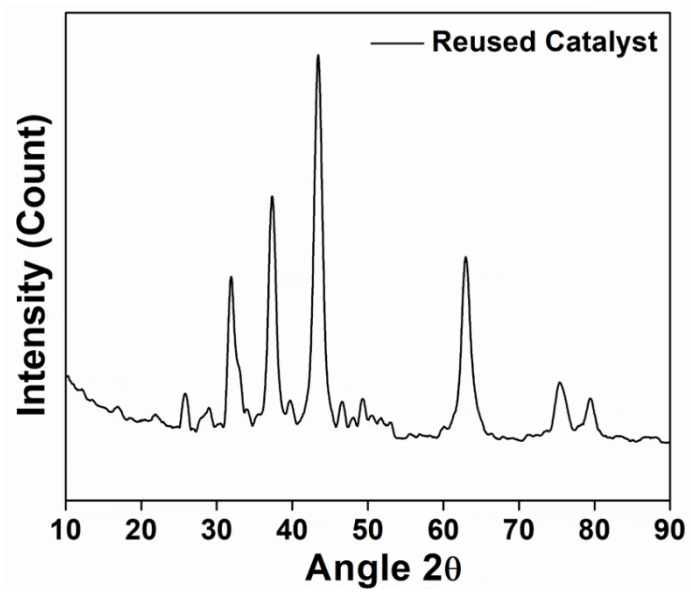**Figure S10.** (a) SEM image and (b) TEM images of reused catalyst

Figure S11. PXRD Spectrum of the reused catalyst