

**Electronic Supplementary Information**

**Colloidal calcium nanoparticles: digestive ripening in presence of a capping agent and coalescence of particles under an electron beam**

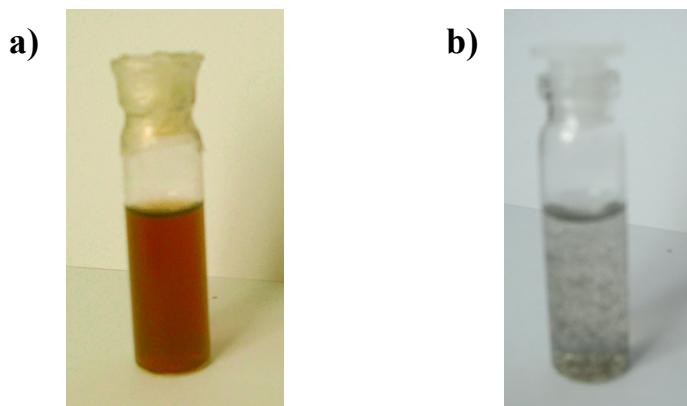
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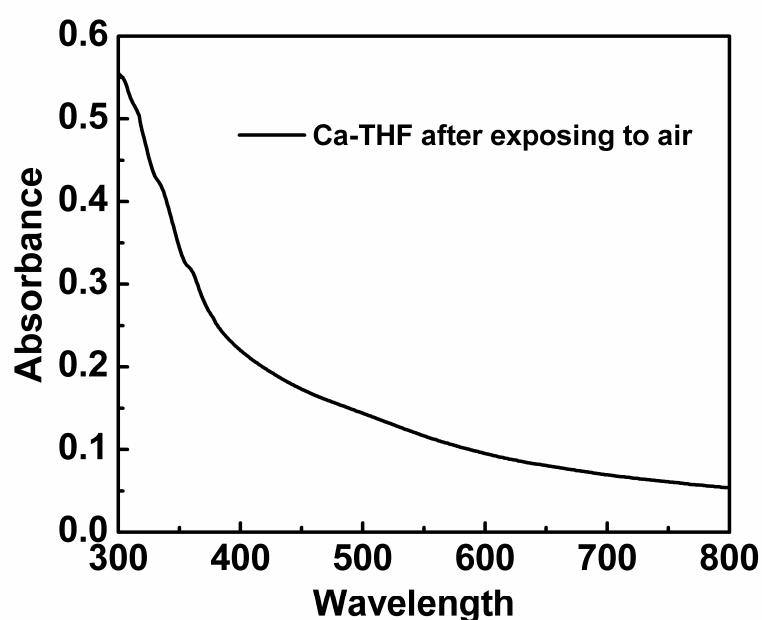
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<sup>b</sup> International Centre for Materials Science, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur P.O., Bangalore 560064, India

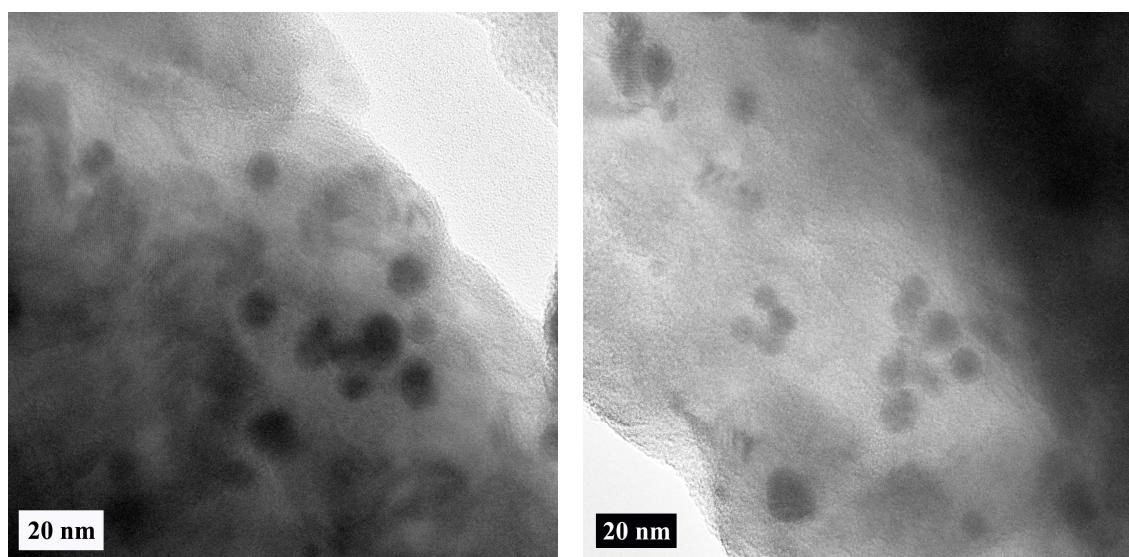
**Figure S1.** Photograph of Ca-THF colloid a) as prepared; b) after exposure to air



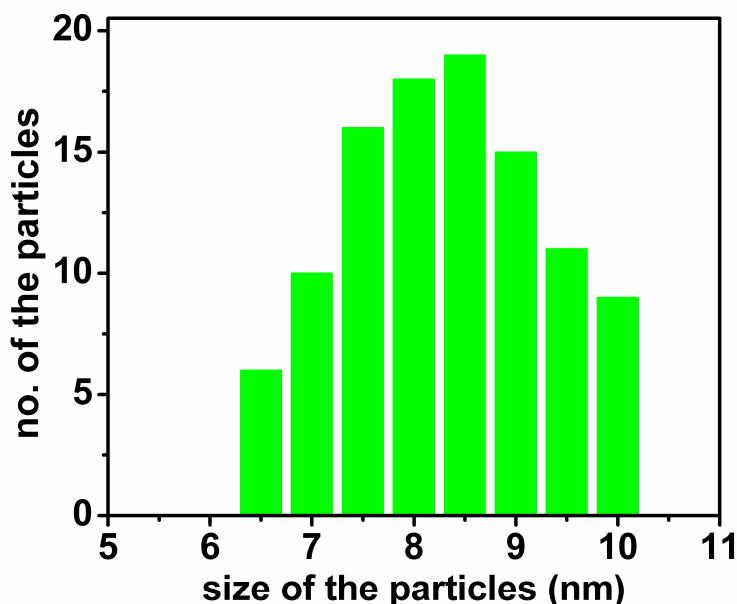
**Figure S2.** UV-visible absorption spectrum of Ca-THF colloid after exposure to air



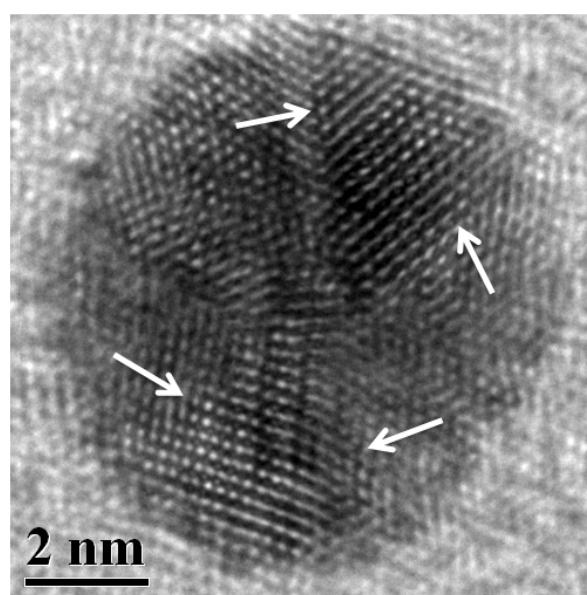
**Figure S3.** TEM BF images of the Ca-THF nanoparticles obtained from different regions showing that the particles are embedded in THF matrix



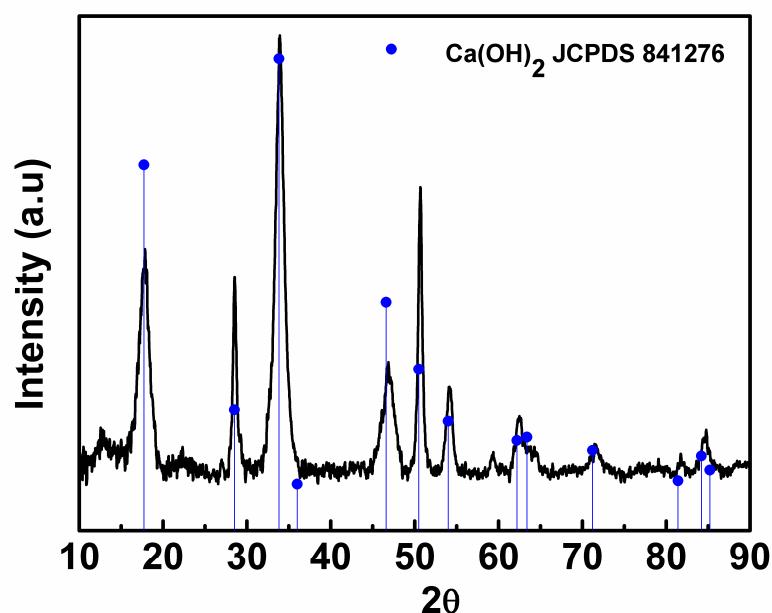
**Figure S4.** Size distribution histogram of Ca-THF nanoparticles (average particle size  $8.3 \pm 1.0$  nm)



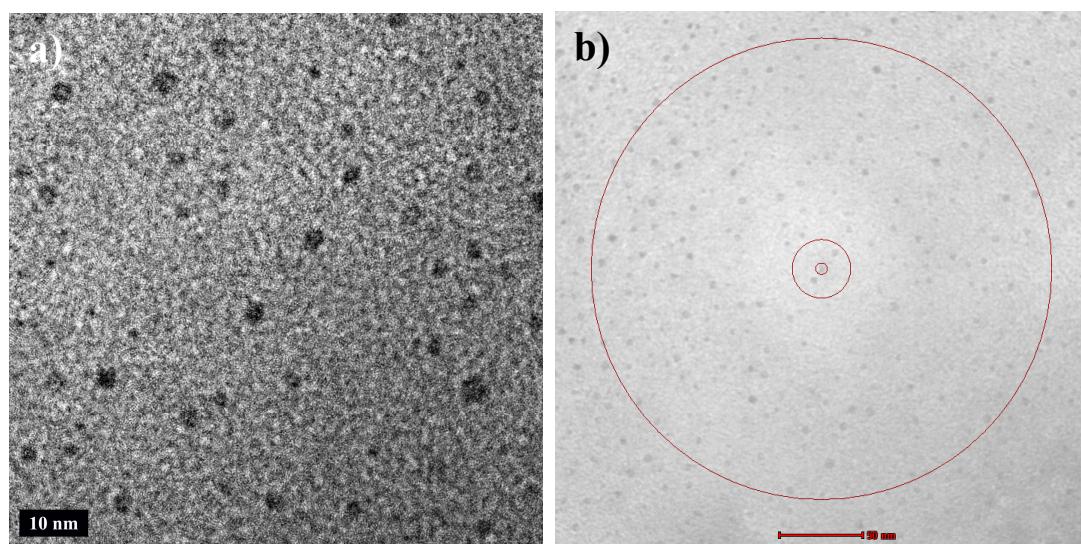
**Figure S5.** Atomic resolution image of a spherical, polycrystalline Ca-THF nanoparticle; the arrows reveal the grain boundaries



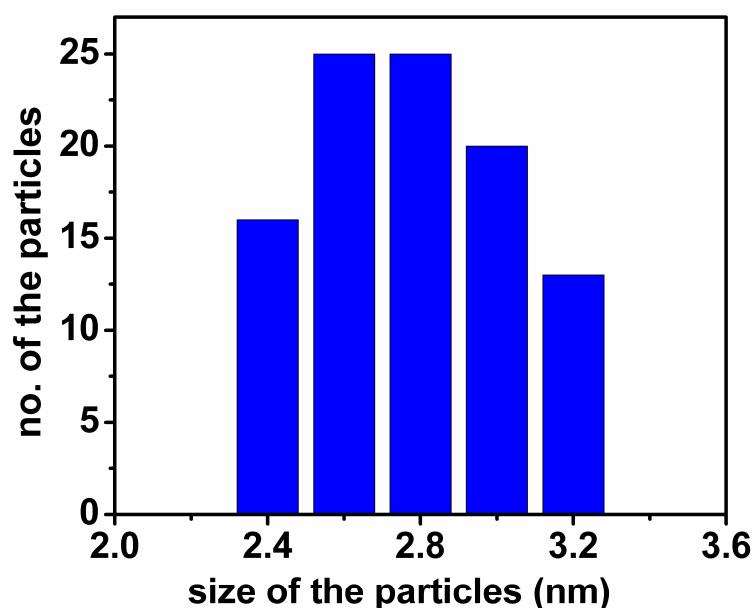
**Figure S6.** Powder XRD pattern of the Ca-THF nanopowder recorded after exposure to air



**Figure S7.** a) TEM BF images of the Ca-HDA-THF nanoparticles; b) low magnification image of the Ca nanoparticles taken from the image plane of the TEM instrument directly (scale bar 50 nm)



**Figure S8.** Size distribution histogram of HDA capped Ca nanoparticles (average particle size  $2.5 \pm 0.4$  nm)



**Figure S9.** HRTEM image of Ca-HDA-THF nanoparticles; the lattice fringes were calculated as  $2.0\text{\AA}$  corresponding to the  $<220>$  plane of FCC Ca nanoparticles

