**Abstract**

Visible light induced photocatalyst BiVO4 with monoclinic scheelite structure has been synthesised via sol gel method assisted by ultrasonication. The prepared samples were characterised using X-Ray diffraction (XRD), scanning electron microscope (SEM), UV–Vis diffused reflectance spectroscopy (DRS) techniques. The photocatalytic efficiency was evaluated by decolourisation of MB under visible light irradiation. The effect of ultrasound output power on the properties of BiVO4 during and after preparation by sol-gel method has been compared with normal agitated sample (As prepared). The power of ultrasonic vibration has been varied and an ideal output power which yields better catalytic efficiency is determined. BiVO4 sonicated with 80 W during preparation 80W (D) exhibited relatively high surface area, better surface morphology and better catalytic efficiency compared to other samples which were sonicated with 100, 160 and 200 W. The results signify that the photodegradation rate of BiVO4 80W (D) sample is high upto 96% in 90 min compared to other samples. Change in morphology leading to better catalytic efficiency was obtained just by exposing the sample to ultrasonic radiation without addition of any surfactant. The recovery test showed that the sample was stable for four consecutive cycles. Using radical test a reasonable mechanism for photodegradation has been proposed.