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(57) Abstract :
Zno nano particle alone are less efficient for catalytic applications in visible light as well as their fast recombination tendency with photo generated carriers make these compounds less effective in sterilization application. To improve the effectiveness of ZnO based photocatalyst Vanadium-Zno nanoflakes with an approximate size of 200nm are synthesized using ultrasonic waves at 60w, 6KHz for 3 hours from a probe sonicator. The as prepared Vanadium-ZnO nano flakes are then characterized by different instrumental method like TEM, FESEM, EDAX, XRD, UV-Vis and FTIR to establish its particle size, crystal structure morphology and composition. The result suggests that vanadium doped ZnO can easily be synthesized by in one step employing Sonochemical method. Such composite materials are exhibiting excellent photo catalytic results.

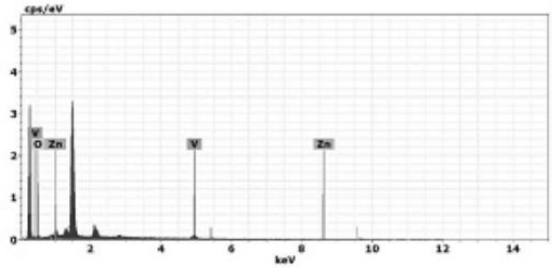

Fig. EDAX results

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