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| Name                                     | Dr. Ravindra S. Sonawane   |
| Designation                              | Scientist D   |
| Educational qualification                | M. Sc from University of Pune (UOP), Pune.<br>Ph. D from National Chemical Laboratory, (UOP), Pune.   |
| Research area                            | Nanostructured Materials, Photonic materials, Dye Sensitized Solar cells, Lithium ion battery, Visible light active photo-catalysts for Hydrogen from H <sub>2</sub> O and H <sub>2</sub> S, Solar light active photo-catalysts for degradation of spent wash from sugar industry and other industrial waste materials. Semiconductor quantum dots in glasses, chalcogenide materials, Oxide and Oxynitride Thin films by sol-gel.  |
| Recognised Awards/Honors/Fellow          | Shirpur Marchant Association award for first rank in M. Sc.   |
| Projects                                 | Ongoing:<br>1. Development of hybrid battery power module with indigenously developed Supercapacitor and Li-ion cell (PN/SP/074) (Sponsored by MeitY, Outlay: Rs. 69.70 lakhs DoS: 11.02.2019; DoC: 10.02.2021).<br>2. Three Dimensional Nanostructure based Miniaturized and Flexible rechargeable lithium batteries for flexible electronics. cell (PN/SP/068) (Sponsored by MeitY, Outlay: 450.00 lakhs DoS: 05.06.2018; DoC: 04.06.2021).<br>Completed:<br>1. Development of visible Light Active Tatanium oxynitride and rantalum oxynitride Photocatalysts for H <sub>2</sub> O Splitting (PN/SP/051) Sponsored by DRDO, New Delhi, Outlay 44.03 lakhs. (PI).   |
| Publications/Patents (Last 5 years only) | <b>Papers in last 5 years : 11 ( I.F. 2 to 5 )</b><br><b>Patents : 5</b><br><b>H index : 20</b><br><b>Latest Publications :</b><br>1. Green Approach: Scalable Dry Media Synthesis of $\gamma$ -TaON Photocatalyst for Solar H <sub>2</sub> Production and Rhodamine B Degradation; Supriya K. Khore, Sunil R. Kadam, Bharat B. Kale, <b>Ravindra S. Sonawane*</b> <b>Sustainable Energy &amp; Fuels 2020 (Accepted)</b> . <a href="https://doi.org/10.1039/D0SE00791A">doi.org/10.1039/D0SE00791A</a> .<br>2. Facile template free approach for the large-scale solid phase synthesis of nanocrystalline XIn <sub>2</sub> S <sub>4</sub> (X = Cd/Zn) and its photocatalytic performance for H <sub>2</sub> evolution. Sonali D. Naik, Sanjay K. Apte,* Sunil N. Garaje, Yogesh A. Sethi, Manish D. |

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|                     | <p>Shinde, Sudhir A. Arbuj, Bharat B. Kale and <b>Ravindra S. Sonawane</b>* <i>New J. Chem.</i>, 2020, 44, 9634.</p> <p>3. Hierarchical SnS@ ZnIn<sub>2</sub>S<sub>4</sub> marigold flower 2D nano-heterostructure as an efficient photocatalyst for sunlight-driven hydrogen generation; Aarti Gunjal, Anirudha K Kulkarni, Ujjwala V Kawade, Yogesh A Sethi, <b>Ravindra Sonawane</b>, JIN-OOK BAEG, Arvind Nagawade, Bharat B Kale, <b>Nanoscale Advances (accepted 2020)</b>.</p> <p>4. Solar-light-active mesoporous Cr-TiO<sub>2</sub> for photodegradation of spent wash: an in-depth study using QTOF LC-MS ; Shrikant P. Takle, Onkar A. Apine, Jalindar D. Ambekar, Sukeshani L. Landge, Namdeo N. Bhujbal, Bharat B. Kale and <b>Ravindra S. Sonawane</b> * <b>RSC Adv.</b>, 2019, 9, 4226.</p> <p>5. Two-dimensional hexagonal SnS<sub>2</sub> nanostructures for photocatalytic hydrogen generation and dye degradation; Shubhangi R Damkale, Sudhir S Arbuj, Govind G Umarji, Rajendra P Panmand, Supriya K Khore, <b>Ravindra S Sonawane</b>, Sunit B Rane, Bharat B Kale, <b>Sustainable Energy &amp; Fuels 2019,(3) 3406-3414</b>.</p> <p>6. Solar light active plasmonic Au@TiO<sub>2</sub> nanocomposite with superior photocatalytic performance for H<sub>2</sub> production and pollutant degradation† Supriya K. Khore,a Sunil R. Kadam,ab Sonali D. Naik,a Bharat B. Kale a and <b>Ravindra S. Sonawane</b> *<i>New J. Chem.</i>, 2018, 42, 10958.</p> |
| Google scholar link | <a href="https://scholar.google.co.in/citations?user=8e8HkXIAAAAJ&amp;hl=en">https://scholar.google.co.in/citations?user=8e8HkXIAAAAJ&amp;hl=en</a>  |