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| Title | Novel micro-ring structured ZnO photoelectrode for dye-sensitized solar cell | | |
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| Published Journal Name | Micro & Nano Letters | | |
| Type of Publication | Journal | | |
| Volume | 2 | Issue |  |
| Publisher | Institution of Engineering and Technology and The Institution of Engineering and Technology | | |
| Publication Date | 2010 | | |
| ISSN | 1750-0443 | | |
| DOI | 10.5101/nml.v2i1.p53-55 | | |
| URL | https://link.springer.com/article/10.1007/BF03353618 | | |
| Other Related Info. | Pages 53–55 | | |
| **Keywords:** | | | |
| Citation: Hossain, Md. Faruque & Takahashi, Takakazu. (2010). Novel micro-ring structured ZnO photoelectrode for dye-sensitized solar cell. Nano-micro Letters. 2. 10.5101/nml.v2i1.p53-55. | | | |

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| Abstract |  |
| The micro-ring like structured zinc oxide (ZnO) film was deposited on SnO 2: F coated glass substrate by sol-gel dip-coating technique with 1.0 g polyethylene glycol (PEG) content. The surface morphology of micro-ring structured ZnO film has been confirmed by the scanning electron microscope. This ZnO film is used to fabricate the solar cell with the help of ruthenium based dye and carbon counter electrode. The photoelectric and incident photon-to-current conversion efficiency was 1.17% and 48.4%, respectively. The DSC results have been compared with ZnO films prepared without PEG contents. | |

**Please specify which Sustainable Development Goal (SDG) (s) falls under your research:**

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| Goal 1 | No Poverty | Goal 2 | Zero Hunger |
| Goal 3 | Good Health and Well-Being | Goal 4 | Quality Education |
| Goal 5 | Gender Equality | Goal 6 | Clean Water and Sanitation |
| **Goal 7** | **Affordable and Clean Energy** | Goal 8 | Decent Work and Economic Growth |
| Goal 9 | Industry, Innovation and Infrastructure | Goal 10 | Reduced Inequalities |
| Goal 11 | Sustainable Cities and Communities | Goal 12 | Responsible Consumption and Production |
| Goal 13 | Climate Action | Goal 14 | Life below Water |
| Goal 15 | Life on Land | Goal 16 | Peace, Justice and Strong Institutions |
| Goal 17 | Partnerships for the Goals |  |  |