

# Editorial

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This issue contains five contributions dealing with water and air pollution from authors residing in Global South. There are three contributions from India's largest Global South nation (with respect to population), one from Iraq and the fifth from Algeria.

The first contribution is titled 'Performance evaluation of microbial fuel cell using novel anode design and with low-cost components' by Ambekar and Ghangrekar (2022). The microbial fuel cell they designed using locally available, low-cost and effective materials has a novel anode architecture using multiple membranes in a single cell. This special design has obtained a high power density by harvesting carbon dioxide (CO<sub>2</sub>)-neutral electricity from wastewater. Authors might be able to apply their innovation to biopiles described in Yu *et al.* (2021) in a previous publication of the journal.

The next contribution is titled 'Water quality analysis and corrosion potential of the distribution network of Patna, Bihar, India' by Kumar *et al.* (2022). They investigated the scaling and corrosion of metal pipes due to the change in the chemical concentration of flowing water. For the analysis they collected 92 water samples from 46 points of the distribution network in Patna, Bihar, India. They used indices to estimate corrosion and scaling potential of water samples. Their analysis showed that a maximum of 87% of water samples were corrosive and but only a maximum 28% would produce scaling. In previous issues, Casares *et al.* (2021) and Gogate and Jedhe (2021) would benefit from this contribution.

The next contribution is titled 'Adsorption of dye using natural clay from water' by Bourouiss *et al.* (2022). They investigated ability to different concentrations absorb methylene blue dye in water using a modified natural clay by cation exchange and sodium (Na) montmorillonite. The maximum of dyes adsorbing capacities modified natural clay and sodium montmorillonite ( $Q_{max}$ ) were 250.00 and 277.77 mg/g, respectively. Both Freundlich and Langmuir models were found to be good to describe the adsorption of the methylene blue dye on natural clay and sodium montmorillonite. The study proposed by Abdel-Aziz and Fayyadh (2021) and Mondal *et al.* (2021) in previous issues of the journal may be other effective methods to remove methylene blue dye.

The next contribution is titled 'Performance evaluation of coronavirus closure on air quality over central, southern and northern parts of Iraq' by Hason *et al.* (2022). They measured PM<sub>2.5</sub>, PM<sub>10</sub>, nitrogen dioxide (NO<sub>2</sub>) and ozone (O<sub>3</sub>) concentrations at several locations in Iraq during peak of the pandemic. They observed that the lockdown, which is the best to prevent the spread of coronavirus pandemic, significantly improved the air quality index, but had detrimental impact on the economy. Authors would be able to

enhance their study by adopting recommendations proposed by Khan and Hassan (2021).

The next contribution is titled 'Assessment of suspended particulate matter and heavy metal analysis during Diwali festival at Raipur, Chhattisgarh, India' by Khobragade and Ahirwar (2022). They evaluated impact of firecrackers on ambient air quality during the Diwali festival, the festival of light, at the urban-industrial city of Raipur, India. They monitored suspended particulate matter (SPM) and heavy metal analysis concentrations of iron (Fe), zinc (Zn), lead (Pb), manganese (Mn) and nickel (Ni) in air. They found significant increase in SPM and heavy metal concentrations following the Diwali festival. Diwali occurs after post-harvest, when the air pollution is the worst in India. Authors would be able to enhance their study by adopting recommendations proposed by Muthumari *et al.* (2020).

I hope you will find this issue stimulating and informative. I invite our readers to comment on the articles in this issue by submitting a discussion of up to 500 words to the Editor at [journals@ice.org.uk](mailto:journals@ice.org.uk).

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