



BCSIR Dhaka Laboratories, BCSIR

Name	In-situ Arsenic detection kit for Aqueous medium
Area	water (Environmental Sciences)
Uses	Arsenic detection in water
	<p>In 1993, the Department of Public Health Engineering (DPHE), Bangladesh detected four tube wells in Chamargram village of Nawabganj district that yielded arsenic-contaminated groundwater and eight arsenicosis patents. Arsenic is 4 times more toxic than mercury & its fatal dose is 125 mg. The arsenic permissible limit is 50 µg/L in Bangladesh, and worldwide 10 µg/L. According to the Multiple Indicator Cluster surveys (2012), 19 million (12%) people in Bangladesh are at very high risk of Arsenic.</p>
Scale of Development	This process is ready for lease out
Major Raw Material	Mercury bromide, Zn powder, L ascorbic acid
Major Plant Equipment/Machinery	A grinding machine, mixing machine, S.S. still container, oxygen-free reactor/ vacuum conditioning
Details of specific application	Arsenic-prone areas where the drinking water was tested by using this kit,
Status of Development	This process is accepted by the BCSIR authority and ready to leased out
Ecological/Environmental Impact (if any, specify briefly)	This process is environmentally friendly and after commercialization This product able to fulfill our national demand
Patenting details	Patented filed
Commercialization Status	This process is leased out by BCSIR authority
Techno-Economics	Available on demand
Cost of Production (Tk.)	50.00 Tk/Kit
Key words	Arsenic polluted water, kit, environment, permissible limit.
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