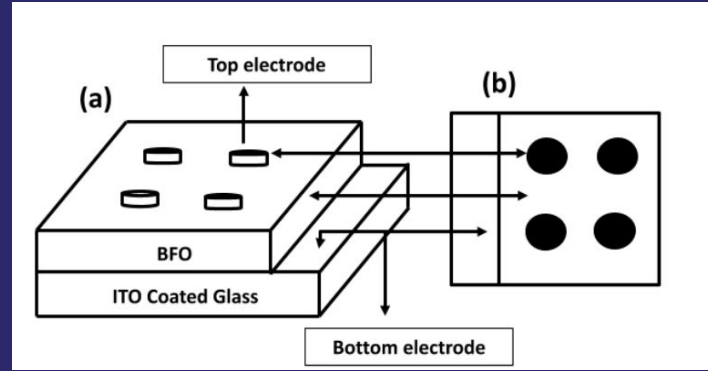


Granted IN432422

# A chemical solution deposition system and method for practical device applications



## NEED

High-end device fabrication techniques yield efficient device performance but lack economic feasibility, necessitating a chemical solution deposition system for practical applications.

## SOLUTION

The invention aims to provide a chemical solution deposition system and method for depositing highly crystalline BiFeO<sub>3</sub> thin films.

## INNOVATION

Developing a chemical solution deposition system involving precise dissolution and mixing of bismuth nitrate pentahydrate and iron nitrate nonahydrate in a mixed solvent, followed by controlled aging, deposition, pre-firing, and annealing processes to fabricate thin-film devices efficiently.

## AT A GLANCE

- Current TRL NA
- Funded by NA
- IPC C01G, C23C, H01L
- Domain  
Chemical system

## MARKET ANALYSIS

Market: Renewable energy technology

CAGR: Reflective of growth in renewable energy sector (e.g., 8-10%)

Potential Indian Clients: Solar energy companies, research institutions, renewable energy startups

## WHY INVEST?

Chemical solution deposition

Thin-film

Photovoltaic (PV) technology

Ferroelectric photovoltaic effect (FEPV)



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