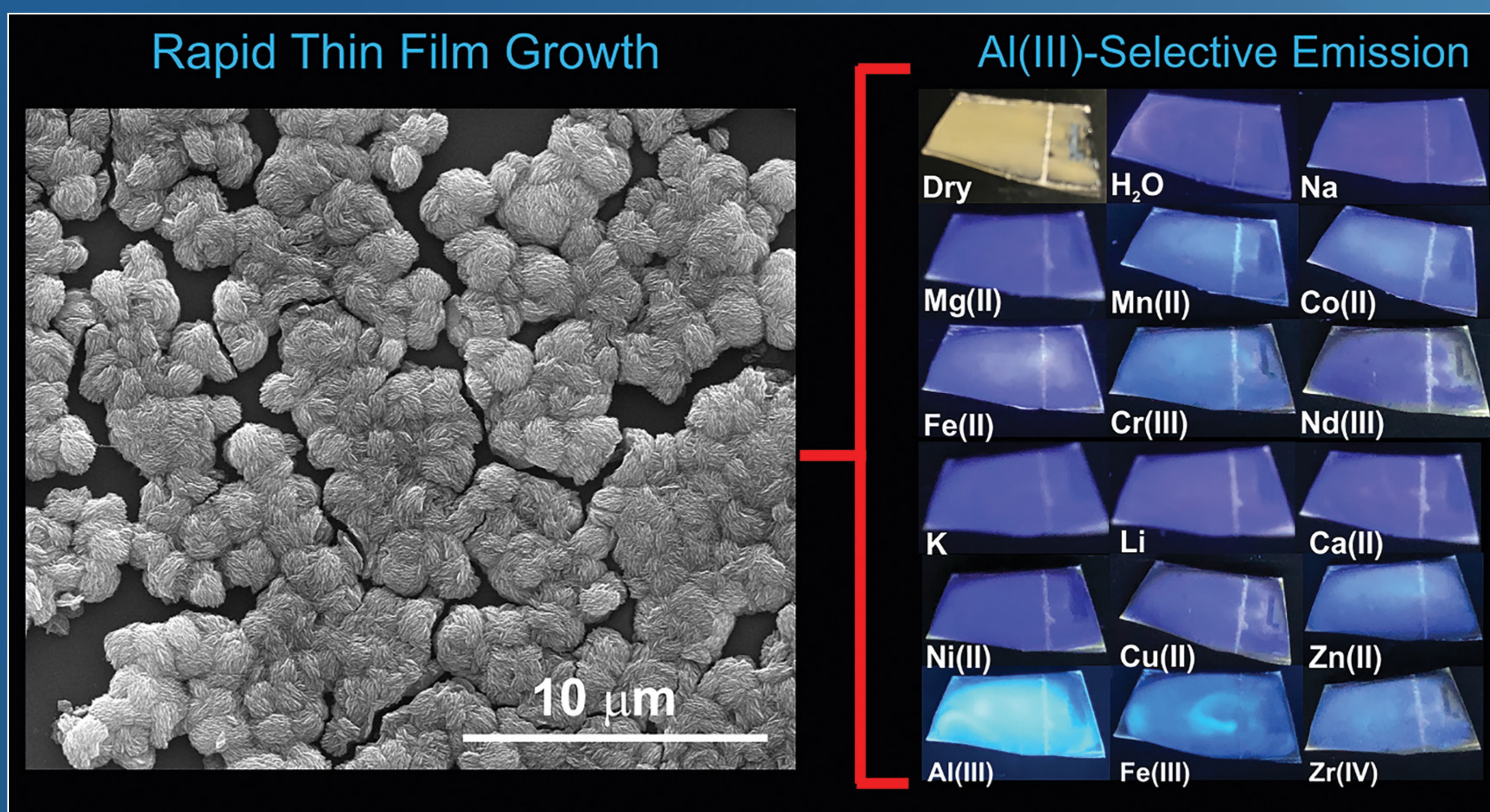


# NETL RESEARCHERS CREATE TECHNOLOGY TO DETECT ALUMINUM IMPURITIES IN RARE EARTH ELEMENT SOURCES

*Monitoring the effectiveness of aluminum removal processes during rare earth element (REE) production from liquid streams reduces cost, saves time, and helps ensure a high-purity REE product.*



Aluminum can interfere with quick and effective extraction of valuable REEs from coal waste byproducts.

- The new NETL-developed sensing film emits blue light in the presence of water that becomes more intense in the presence of aluminum ions.
- It is a simple, scalable method for fabricating high-performance sensors to detect aluminum impurities in REE feedstocks.
- Removing and refining aluminum from liquid sources can also provide an additional domestic source of aluminum.

## RESEARCH PRIORITY



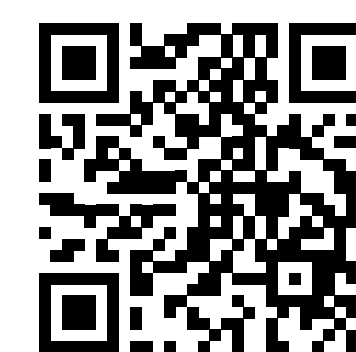
DOMESTIC CRITICAL MINERALS PRODUCTION

## PERFORMER



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