

## Various Pd-Based Alloys for Electrocatalytic CO<sub>2</sub> Reduction Reaction





## [Work function analysis of electrocatalyst materials by AC-3]

Gunji and co-workers measured the work function of various Pd-based alloys for electrocatalytic CO<sub>2</sub> reduction materials with AC-3 and reported their study on Chemistry of Materials[1].

The  $CO_2$  reduction reaction is dragging many attractions nowadays when many countries are claiming the carbon neutral plan.

Gunji and co-workers succeeded in the synthesis of Pd-based electrocatalysts and reduced the  $CO_2$  into CO and HCOOH with prepared catalysts. And by measuring the work function of those catalysts with AC-3, an obvious relationship between the products selectivity and the work function was found.

With this result, AC-3 is proved to be so useful that contribute to those novel researches for climate problems.

[1] Takao Gunji, Hiroya Ochiai, Takahiro Ohira, Yubin Liu, Yoshiyuki Nakajima, and Futoshi Matsumoto, Chemistry of Materials 2020 32 (16), 6855-6863



 $\rightarrow$  Measure ranges from 4.0 to 7.0 eV, capable for more materials.

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