

Let's draw artistic pictures on Ti surface by electrochemical methods!

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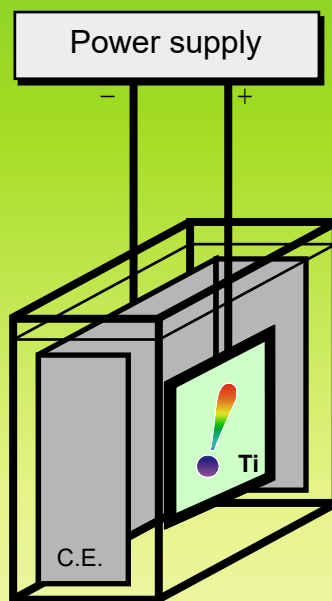
Thin oxide films on metal surfaces show the phenomenon of light interference, by which you can make various colors like a rainbow. The colors vary with oxide film thickness which is determined by voltage in anodizing treatment. At first, the basic mechanism of light interference and oxide film growth by anodizing will be lectured, followed by experiencing how to draw a complicated design and a natural gradation of colors. Students also investigate optimum electrochemical conditions, such as applied voltage, electrolyte composition, and electrolysis time. The goal in this course is to draw your original pictures on titanium sheets.



Mt.IWATE



Kaleidoscope



Electrolysis cell



Mug



Aquarium