

Peculiar Porous Aluminum Oxide Films Produced via Electrochemical Anodizing in Malonic Acid Solution with Arsenazo-I Additive

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Citation: Poznyak, A.; Knörschild, G.; Karoza, A.; Norek, M.; Pligovka, A. Peculiar Porous Aluminum Oxide Films Produced via Electrochemical Anodizing in Malonic Acid Solution with Arsenazo-I Additive. *Materials* **2021**, *14*, 5118. <https://doi.org/10.3390/ma14175118>

Academic Editor: Alina Pruna

Received: 24 July 2021

Accepted: 31 August 2021

Published: 6 September 2021

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S1. Porous Aluminum Oxide Film X-Ray Photoelectron Spectra

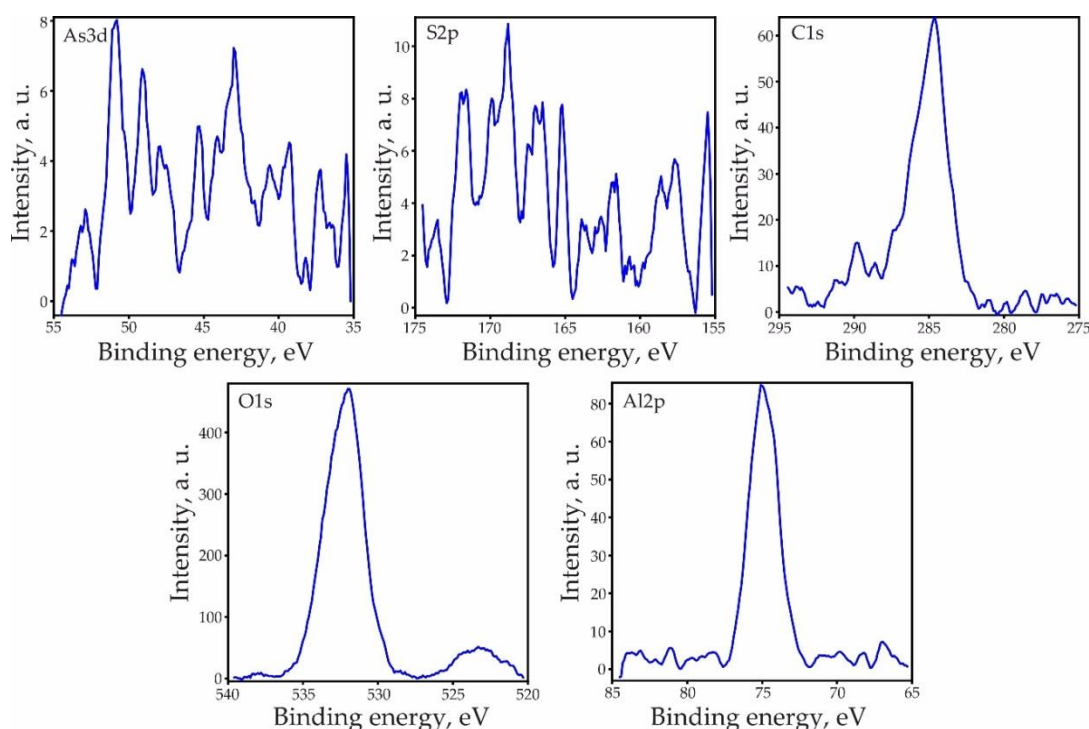


Figure S1. X-ray photoelectron spectra of porous aluminum oxide film formed in 0.6 M malonic acid solution at 15.0 mA·cm⁻² current density with 9.76·10⁻² g·L⁻¹ arsenazo-I addition.

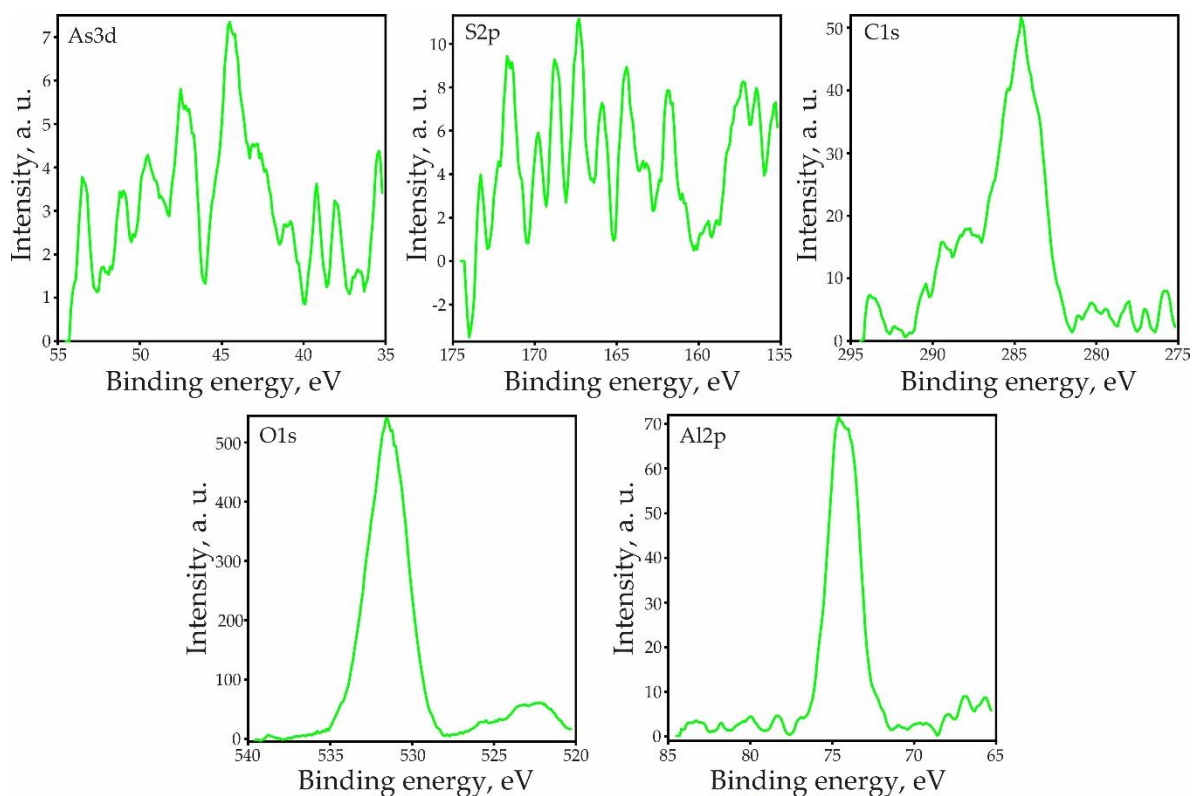


Figure S2. X-ray photoelectron spectra of porous aluminum oxide film formed in 0.6 M malonic acid solution at 15.0 mA·cm⁻² current density with 2.0 g·L⁻¹ arsenazo-I addition.

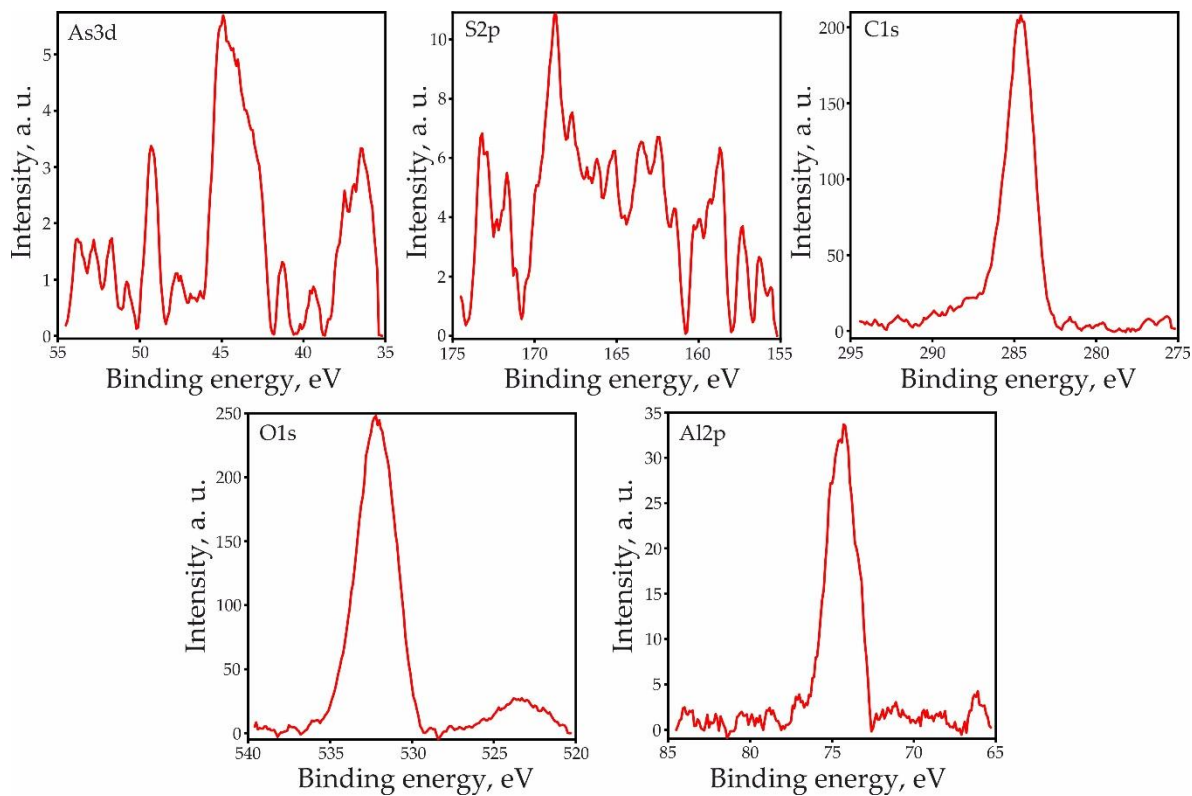


Figure S3. X-ray photoelectron spectra of porous aluminum oxide film formed in 0.6 M malonic acid solution at 15.0 mA·cm⁻² current density with 3.5 g·L⁻¹ arsenazo-I addition.

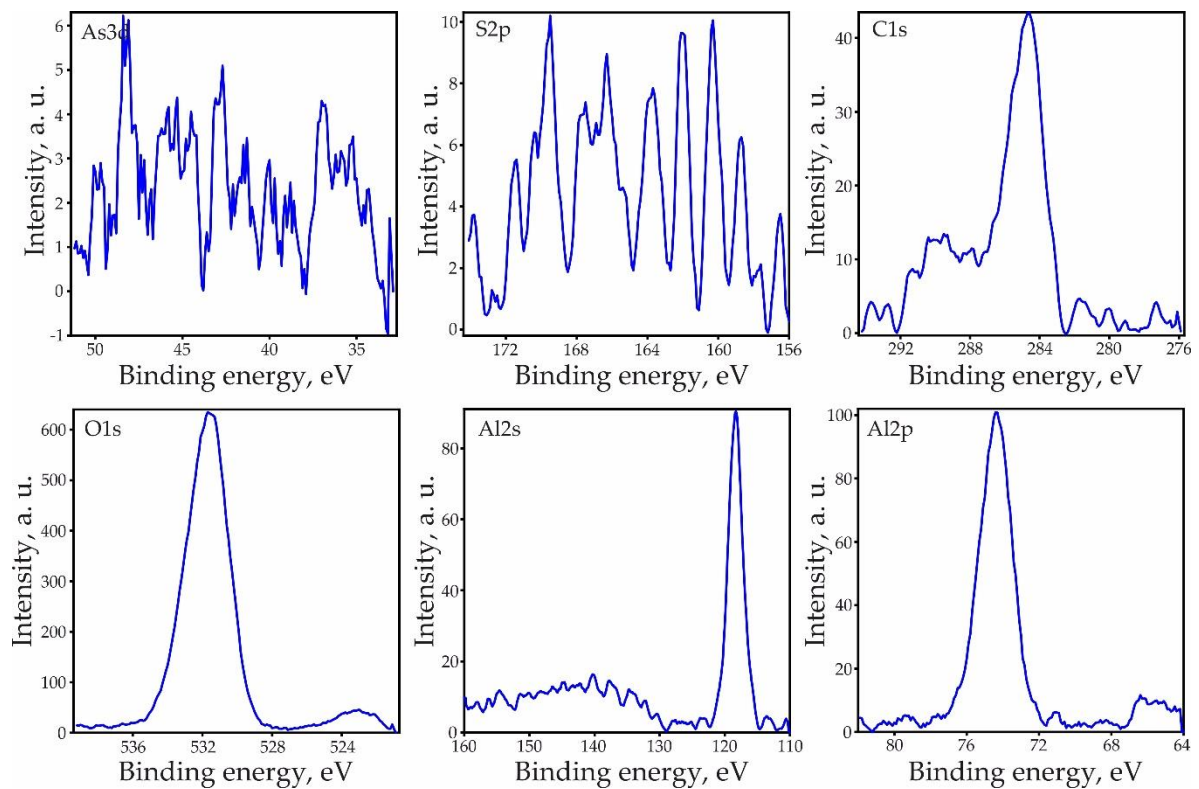


Figure S4. X-ray photoelectron spectra of porous aluminum oxide film formed in 0.6 M malonic acid solution at 100 mA·cm⁻² current density with 2.79·10⁻¹ g·L⁻¹ arsenazo-I addition.

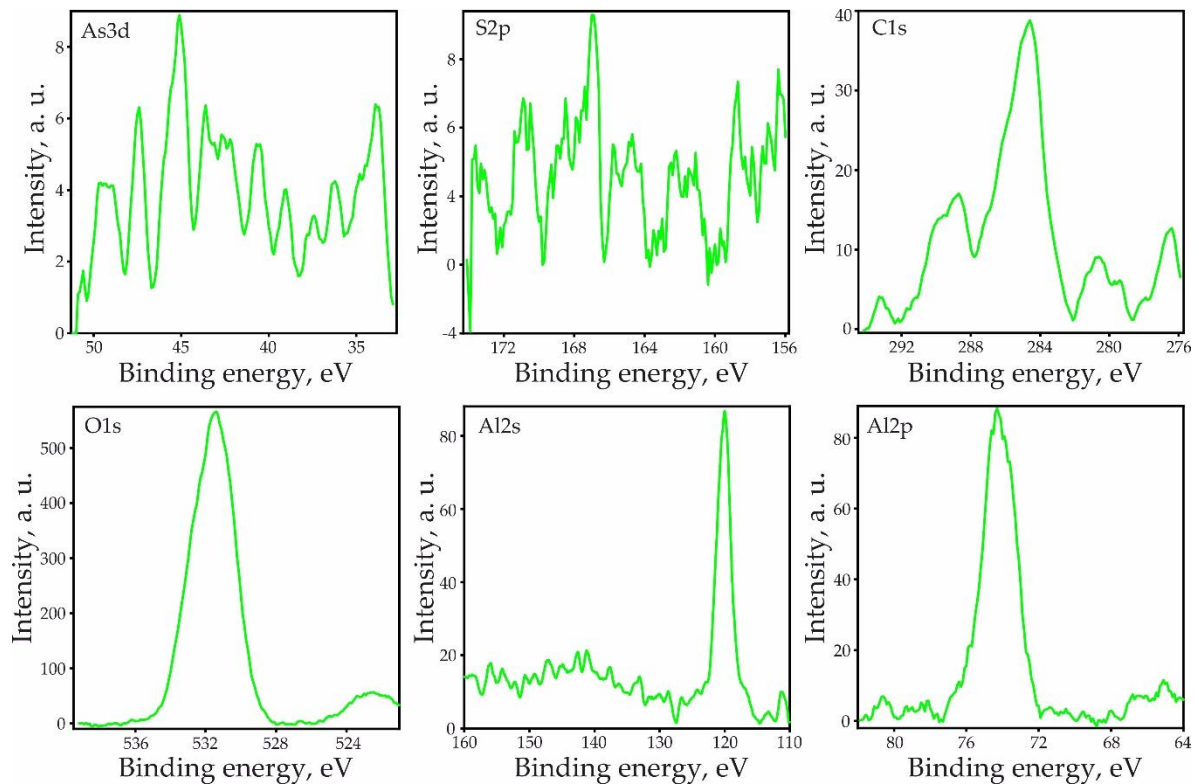


Figure S5. X-ray photoelectron spectra of porous aluminum oxide film formed in 0.6 M malonic acid solution at 100 mA·cm⁻² current density with 2.0 g·L⁻¹ arsenazo-I addition.

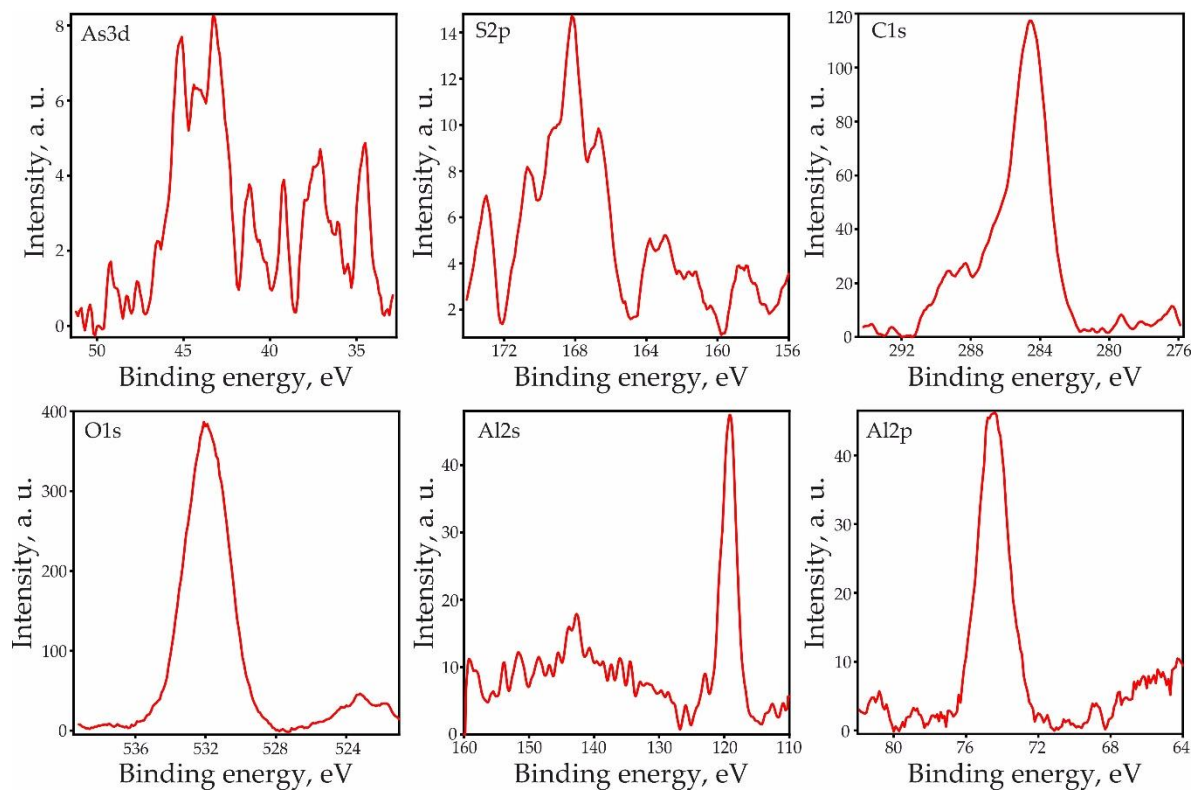


Figure S6. X-ray photoelectron spectra of porous aluminum oxide film formed in 0.6 M malonic acid solution at 100 mA·cm⁻² current density with 3.72 g·L⁻¹ arsenazo-I addition.

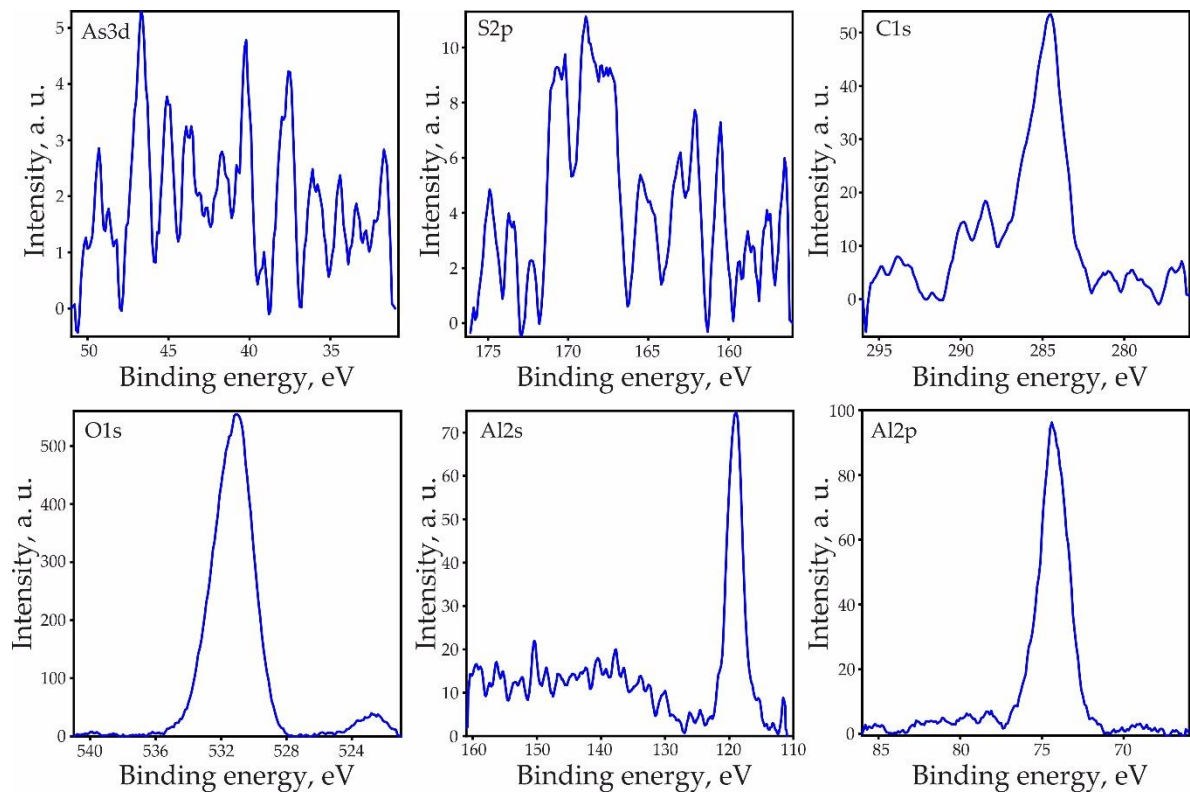


Figure S7. X-ray photoelectron spectra of porous aluminum oxide film formed in 0.6 M malonic acid solution at 200 mA·cm⁻² current density with 1.90·10⁻¹ g·L⁻¹ arsenazo-I addition.

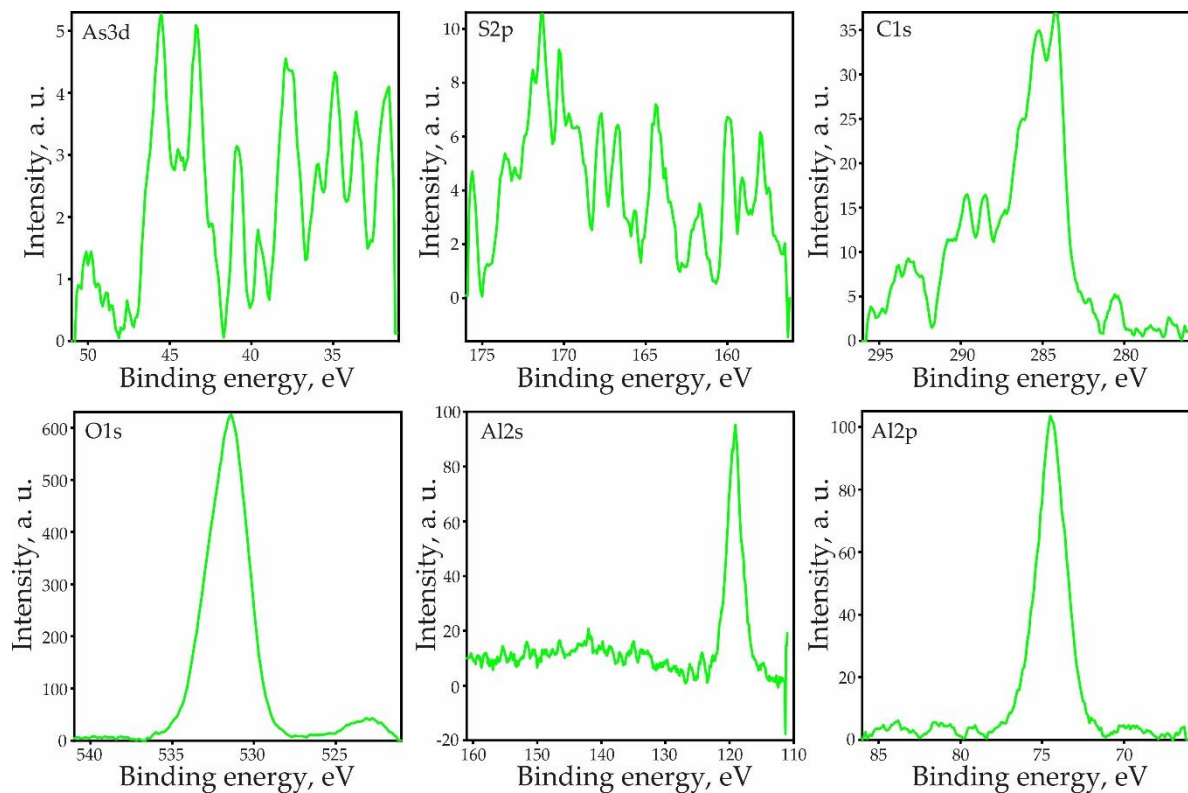


Figure S8. X-ray photoelectron spectra of porous aluminum oxide film formed in 0.6 M malonic acid solution at 200 mA·cm⁻² current density with 2.0 g·L⁻¹ arsenazo-I addition.

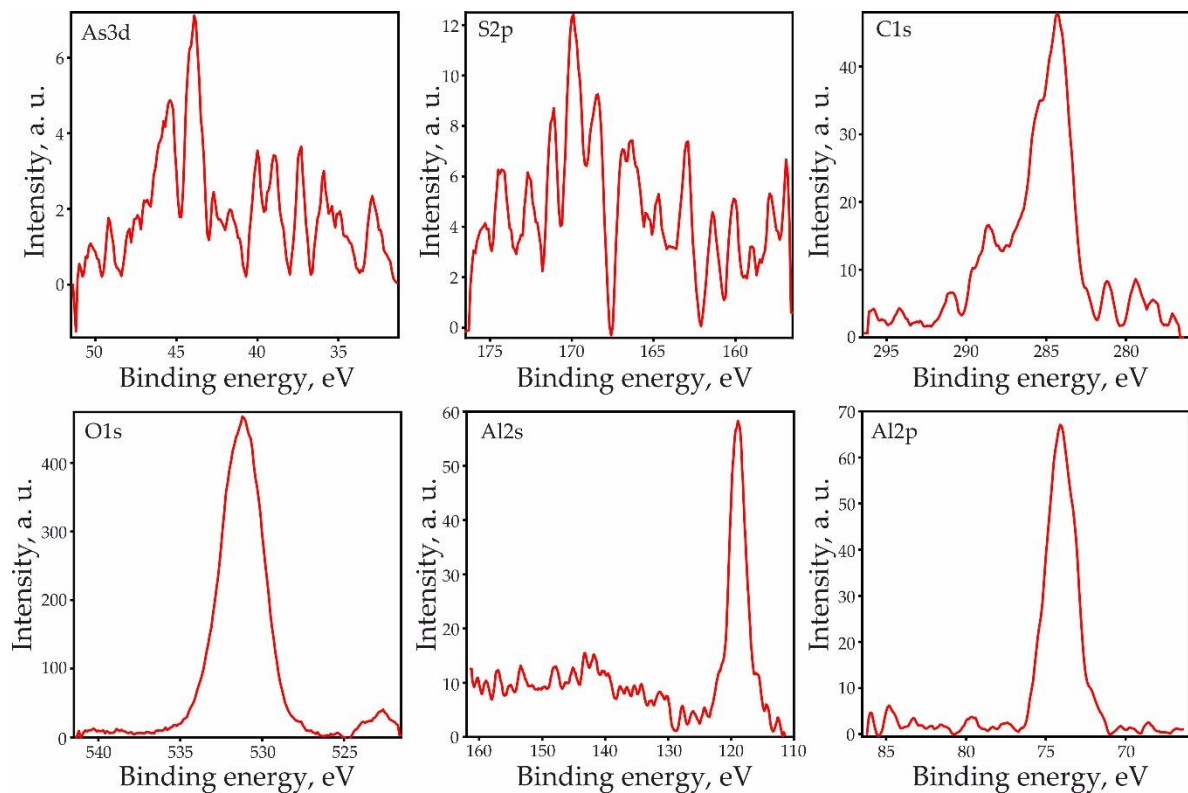


Figure S9. X-ray photoelectron spectra of porous aluminum oxide film formed in 0.6 M malonic acid solution at 200 mA·cm⁻² current density with 4.0 g·L⁻¹ arsenazo-I addition.

S2. Scanning Electron Microscopy of Porous Aluminum Oxide Films

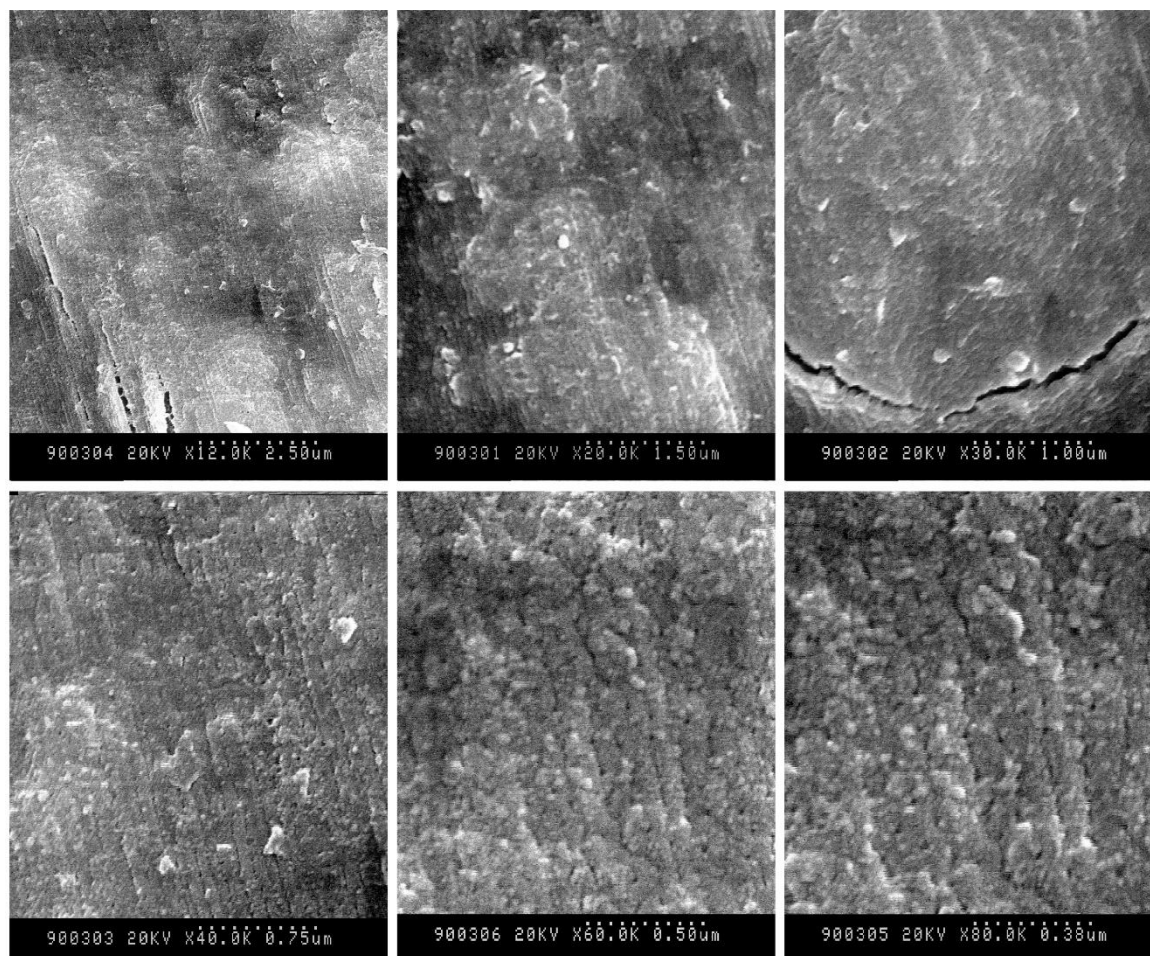


Figure S10. Surfaces of porous aluminum oxide film formed in 0.6 M malonic acid solution at $15.0\text{ mA}\cdot\text{cm}^{-2}$ current density with $3.415\text{ g}\cdot\text{L}^{-1}$ arsenazo-I addition.

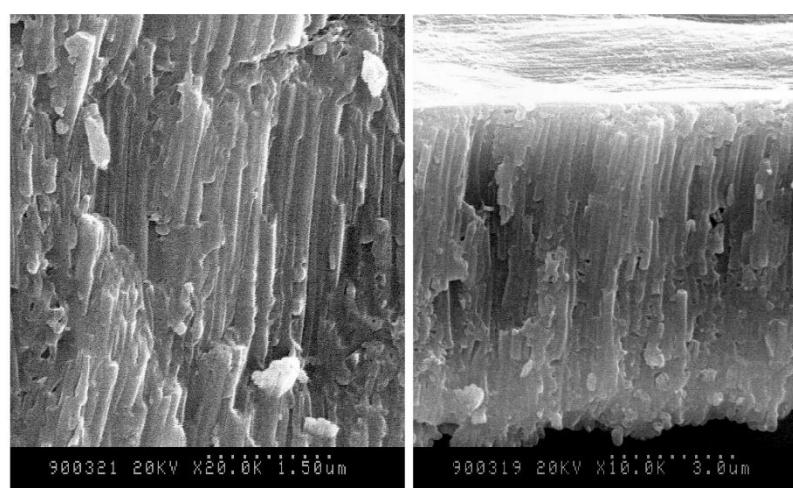


Figure S11. Cross-sections of porous aluminum oxide film formed in 0.6 M malonic acid solution at $15.0\text{ mA}\cdot\text{cm}^{-2}$ current density with $3.415\text{ g}\cdot\text{L}^{-1}$ arsenazo-I addition.

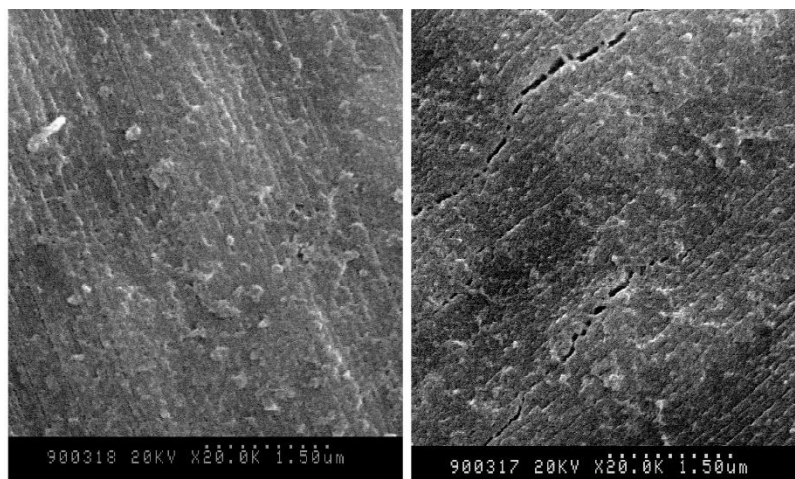


Figure S12. Surfaces of porous aluminum oxide film formed in 0.6 M malonic acid solution at 15.0 mA·cm⁻² current density with 4.0 g·L⁻¹ arsenazo-I addition.

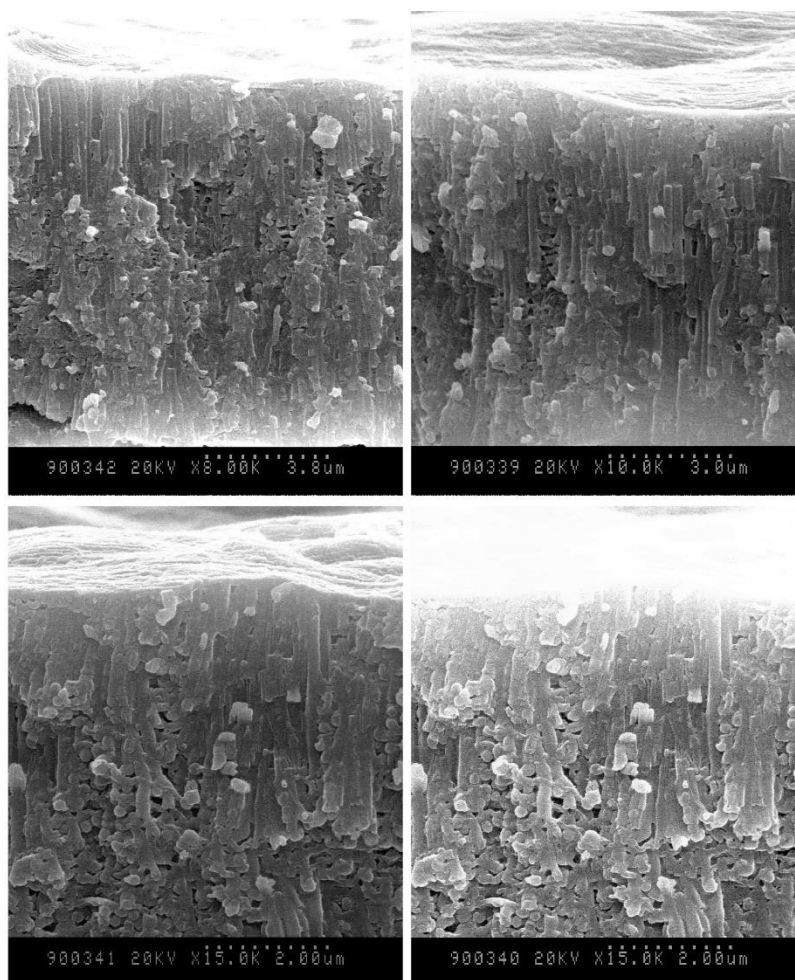


Figure S13. Cross-sections of porous aluminum oxide film formed in 0.6 M malonic acid solution at 15.0 mA·cm⁻² current density with 4.0 g·L⁻¹ arsenazo-I addition.

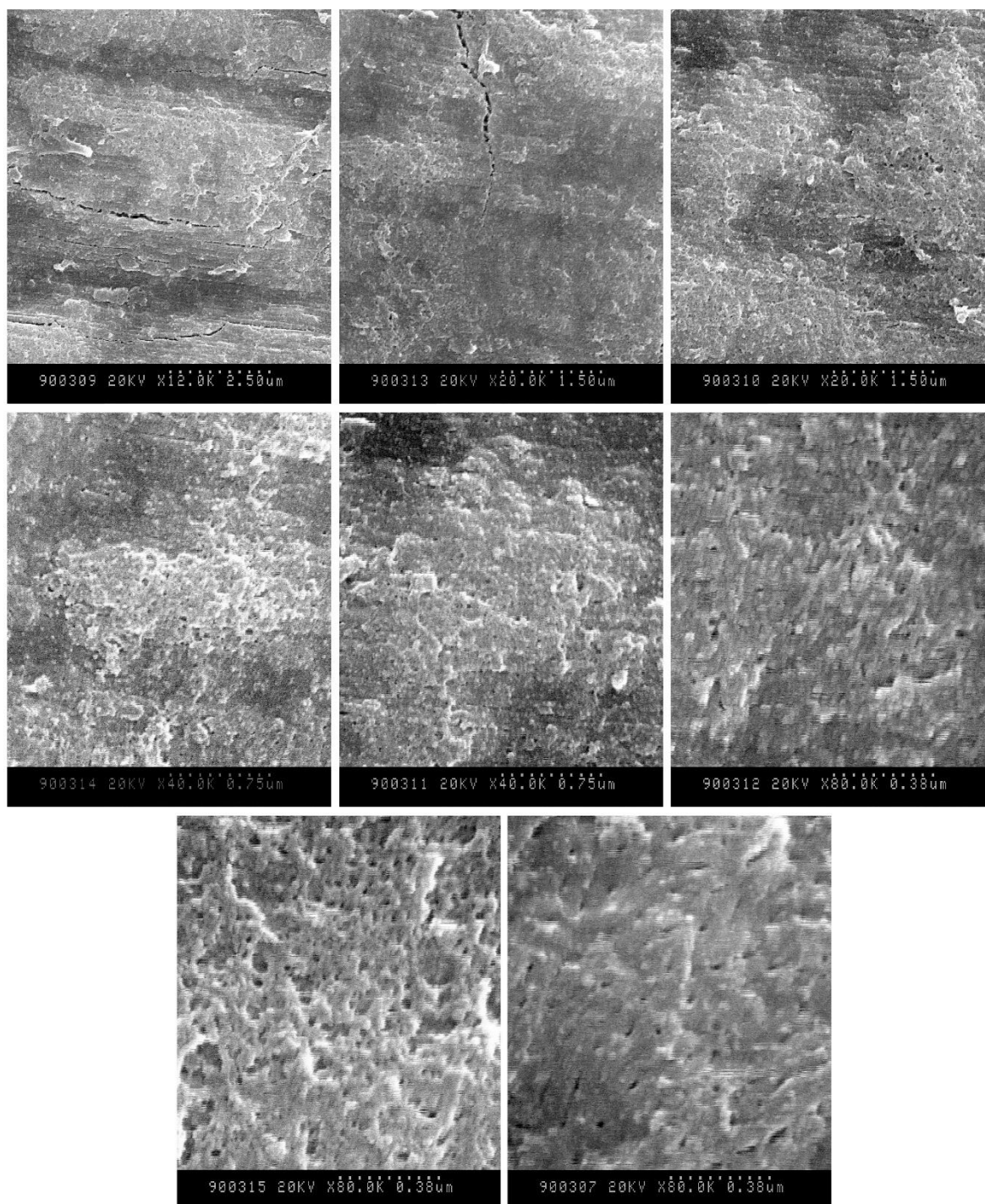


Figure S14. Surfaces of porous aluminum oxide film formed in 0.6 M malonic acid solution at $100 \text{ mA}\cdot\text{cm}^{-2}$ current density with $3.0 \text{ g}\cdot\text{L}^{-1}$ arsenazo-I addition.

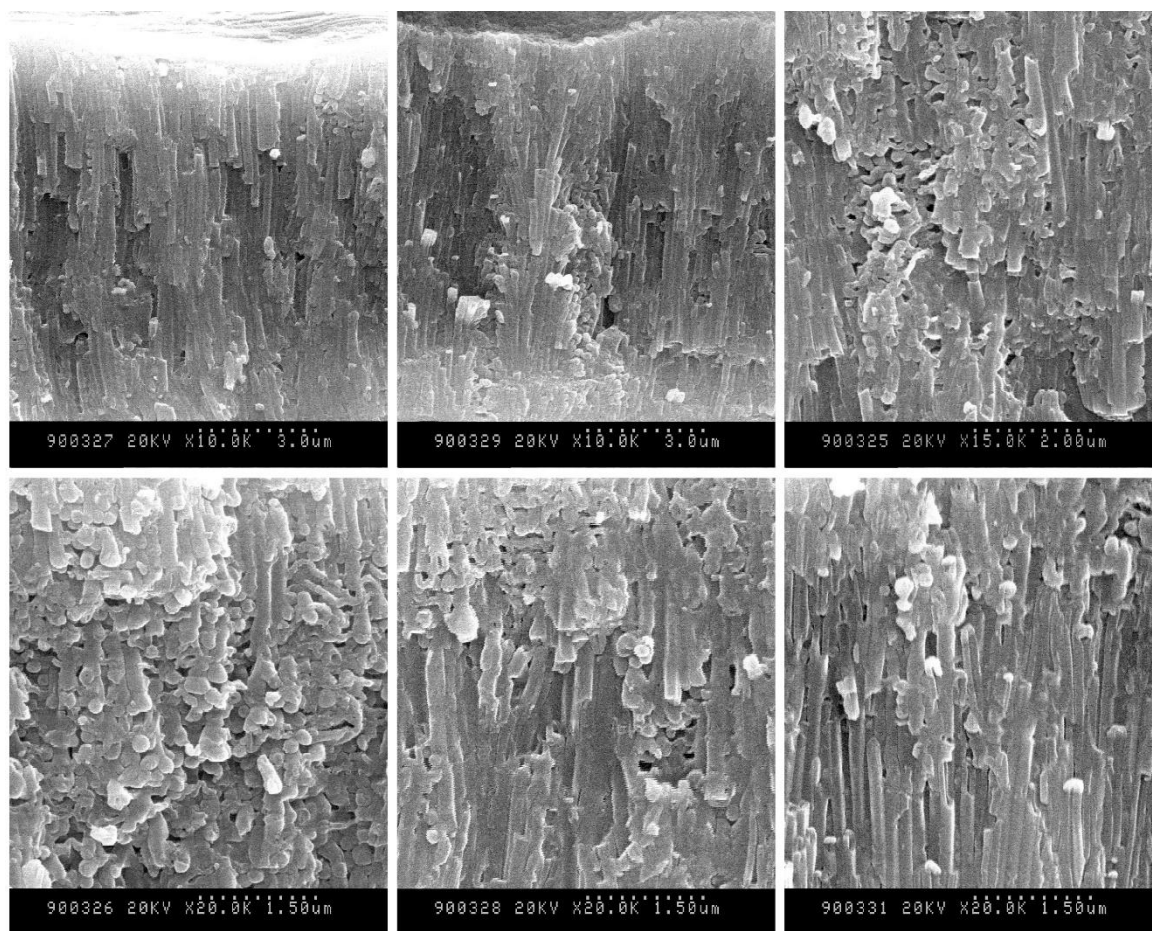


Figure S15. Cross-sections of porous aluminum oxide film formed in 0.6 M malonic acid solution at $100 \text{ mA}\cdot\text{cm}^{-2}$ current density with $3.0 \text{ g}\cdot\text{L}^{-1}$ arsenazo-I addition.

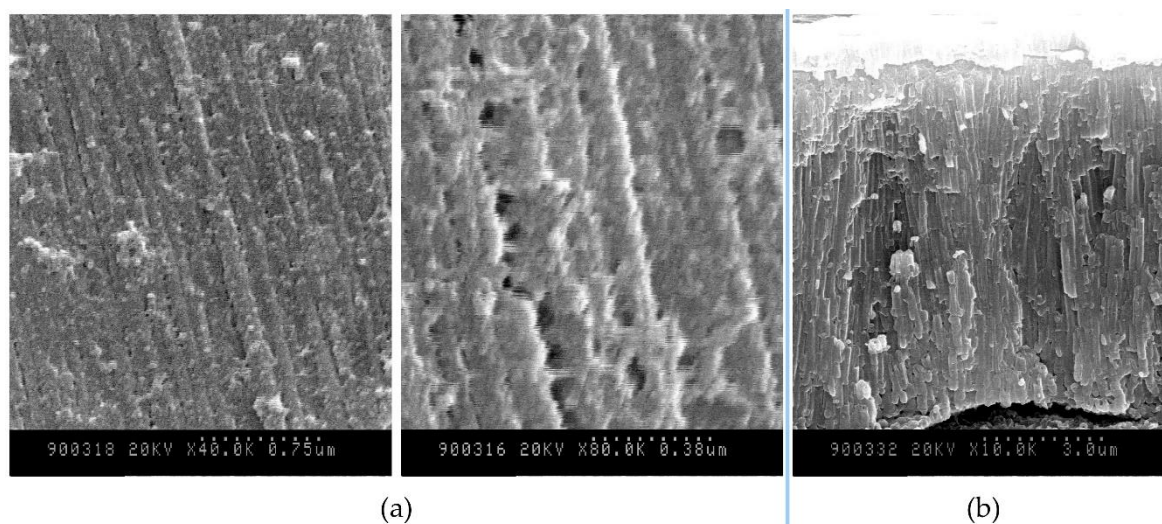


Figure S16. Surfaces (a) and cross-section (b) of porous aluminum oxide film formed in 0.6 M malonic acid solution at $100 \text{ mA}\cdot\text{cm}^{-2}$ current density with $3.721 \text{ g}\cdot\text{L}^{-1}$ arsenazo-I addition.

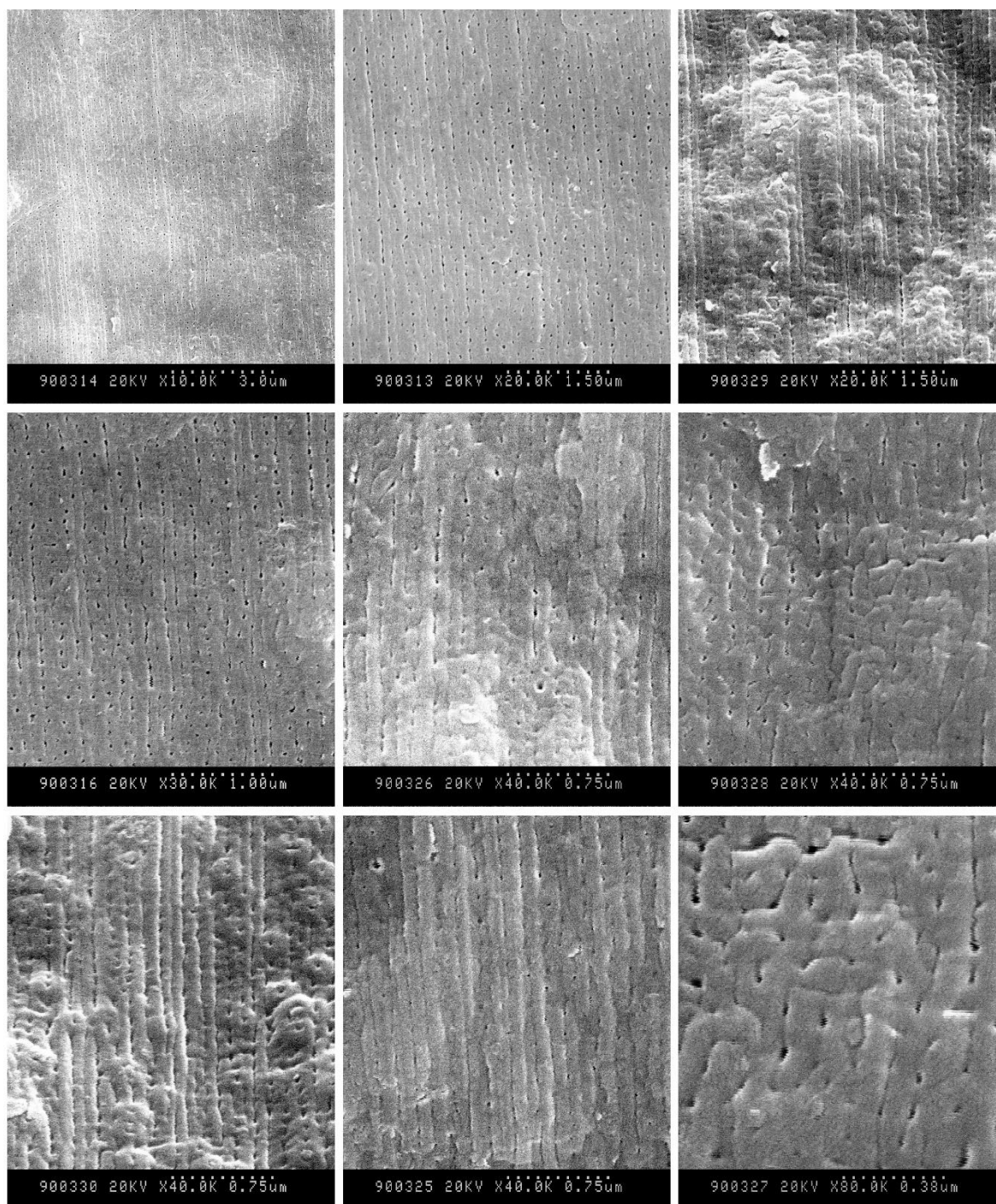


Figure S17. Surfaces of porous aluminum oxide film formed in 0.6 M malonic acid solution at $200 \text{ mA}\cdot\text{cm}^{-2}$ current density with $2.0 \text{ g}\cdot\text{L}^{-1}$ arsenazo-I addition.

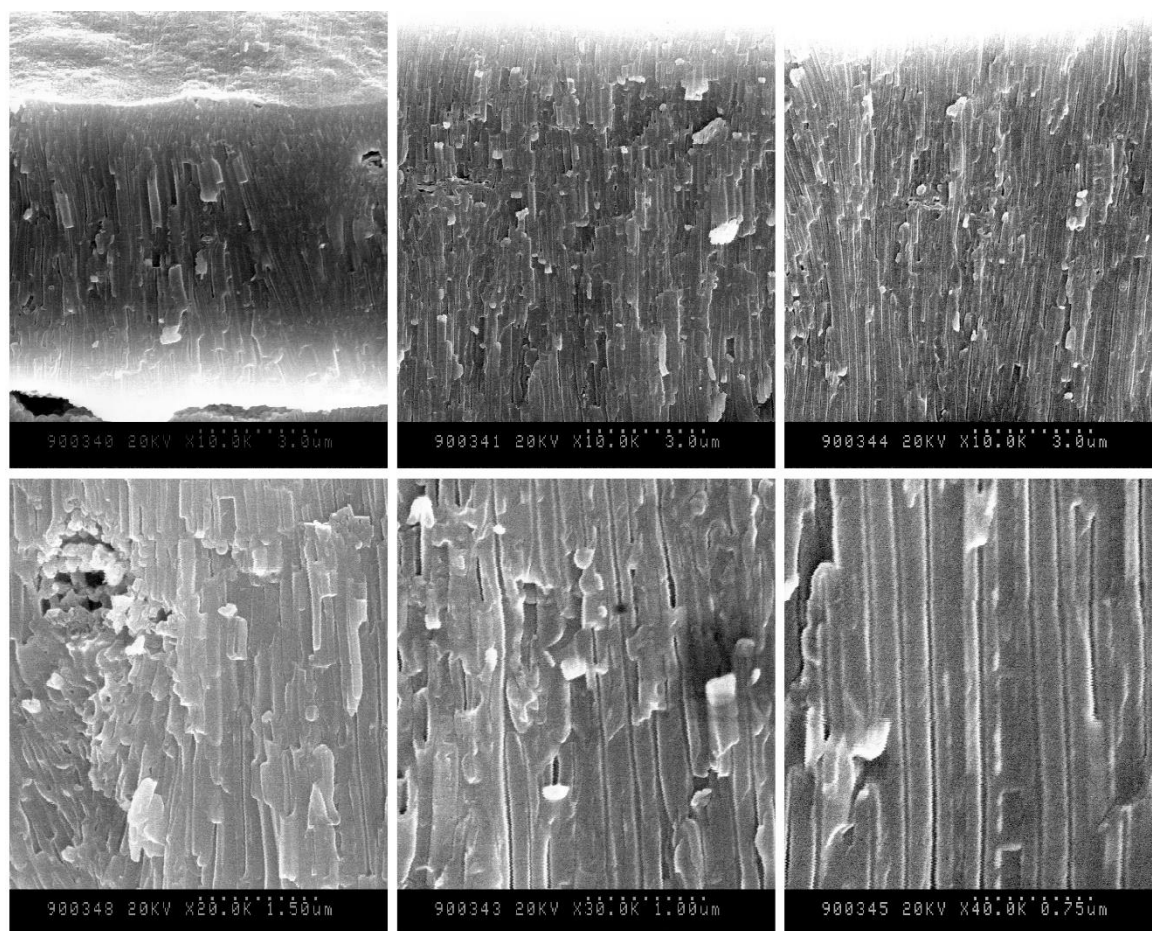


Figure S18. Cross-sections of porous aluminum oxide film formed in 0.6 M malonic acid solution at 200 mA·cm⁻² current density with 2.0 g·L⁻¹ arsenazo-I addition.

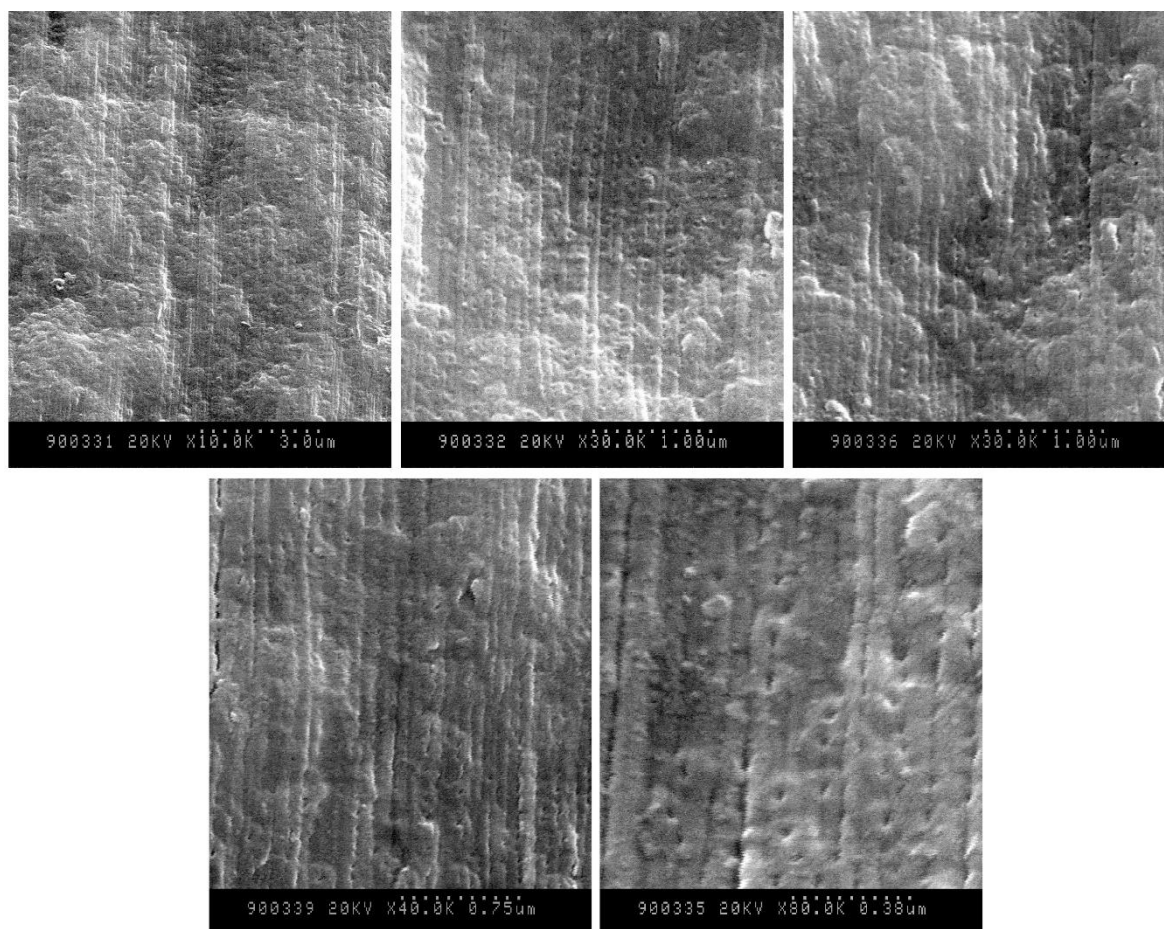


Figure S19. Surfaces of porous aluminum oxide film formed in 0.6 M malonic acid solution at $200 \text{ mA}\cdot\text{cm}^{-2}$ current density with $4.0 \text{ g}\cdot\text{L}^{-1}$ arsenazo-I addition.

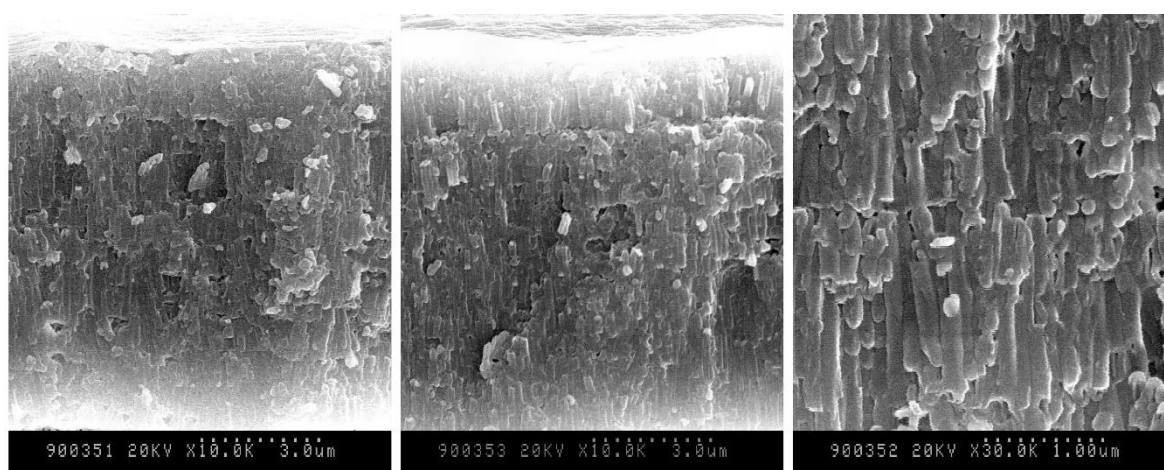


Figure S20. Cross-sections of porous aluminum oxide film formed in 0.6 M malonic acid solution at $200 \text{ mA}\cdot\text{cm}^{-2}$ current density with $4.0 \text{ g}\cdot\text{L}^{-1}$ arsenazo-I addition.