

Supplementary Materials

Porous Alumina Films Fabricated by Reduced Temperature Sulfuric Acid Anodizing: Morphology, Composition and Volumetric Growth

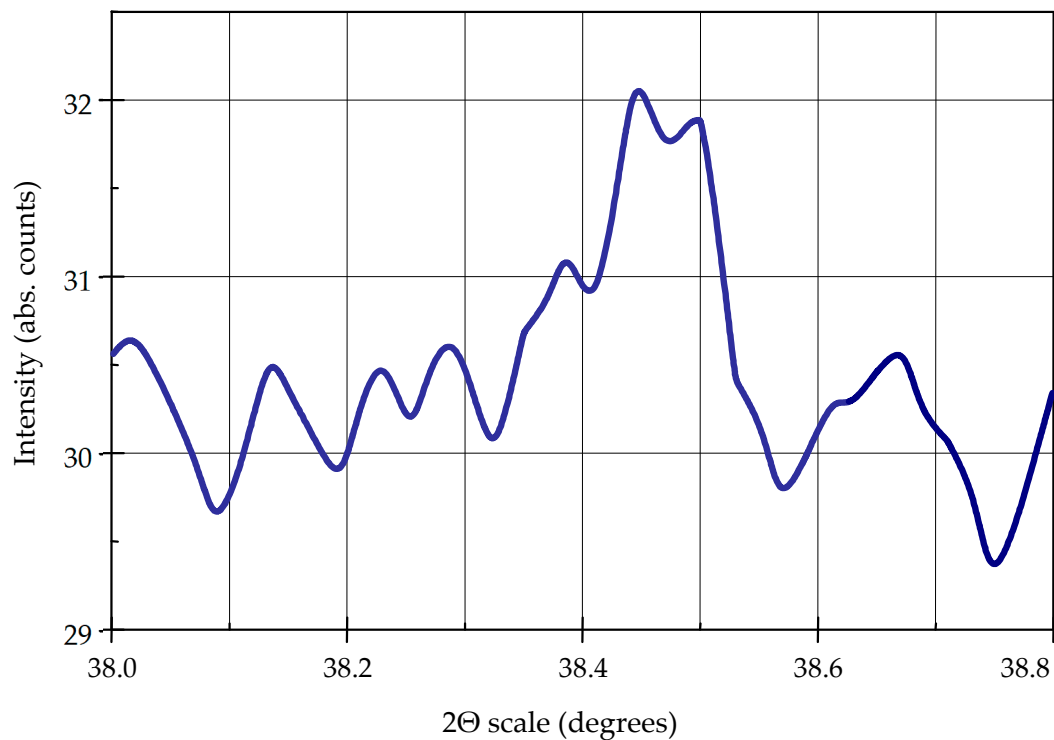


Figure S1. X-ray diffraction analysis of porous alumina film obtained in 0.4 M sulfuric acid solution at 1.5 mA·cm⁻² current density.

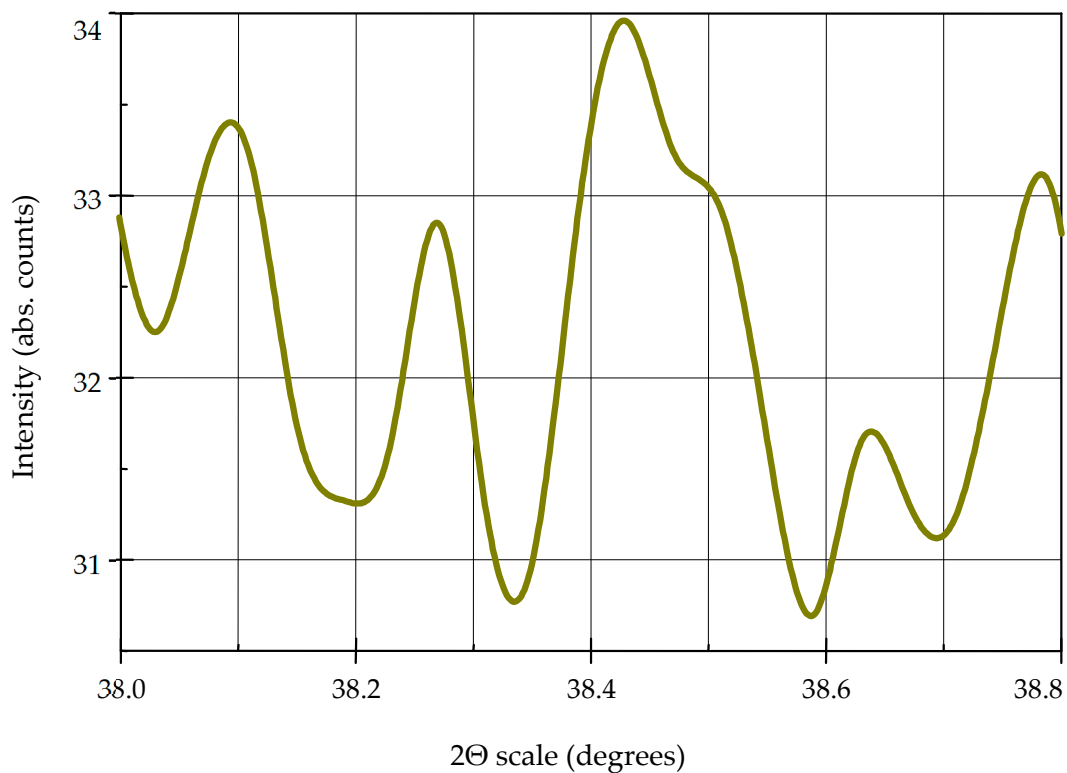


Figure S2. X-ray diffraction analysis of porous alumina film obtained in 0.4 M sulfuric acid solution at 4.25 mA·cm⁻² current density.

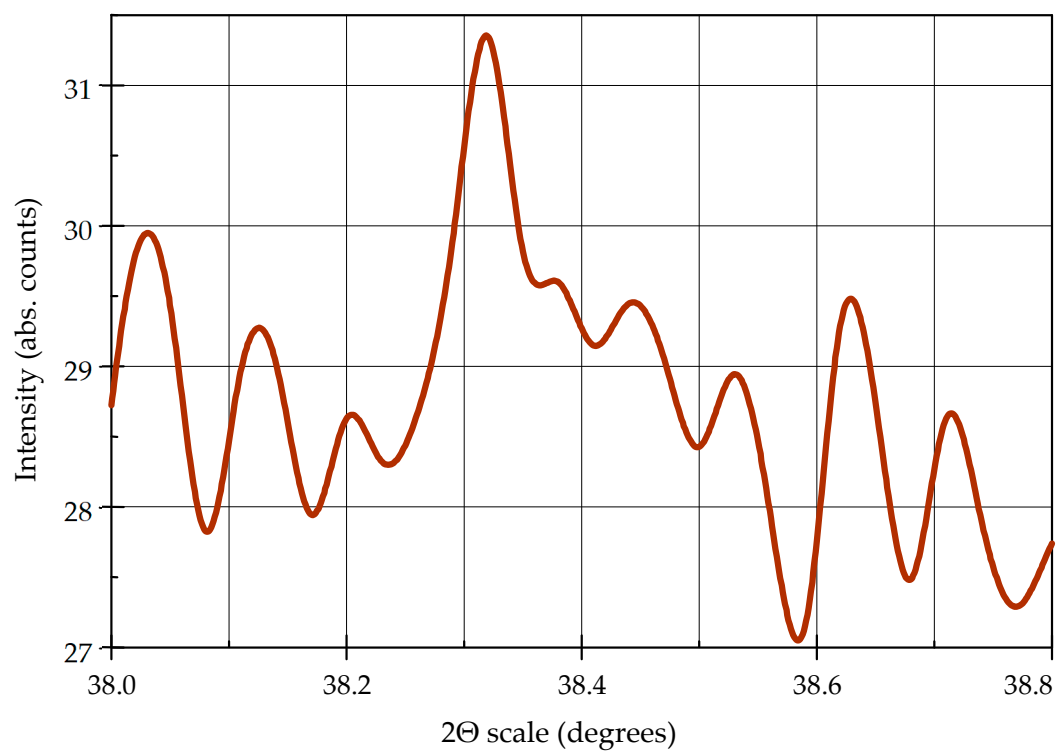


Figure S3. X-ray diffraction analysis of porous alumina film obtained in 0.4 M sulfuric acid solution at 5.0 mA·cm⁻² current density.

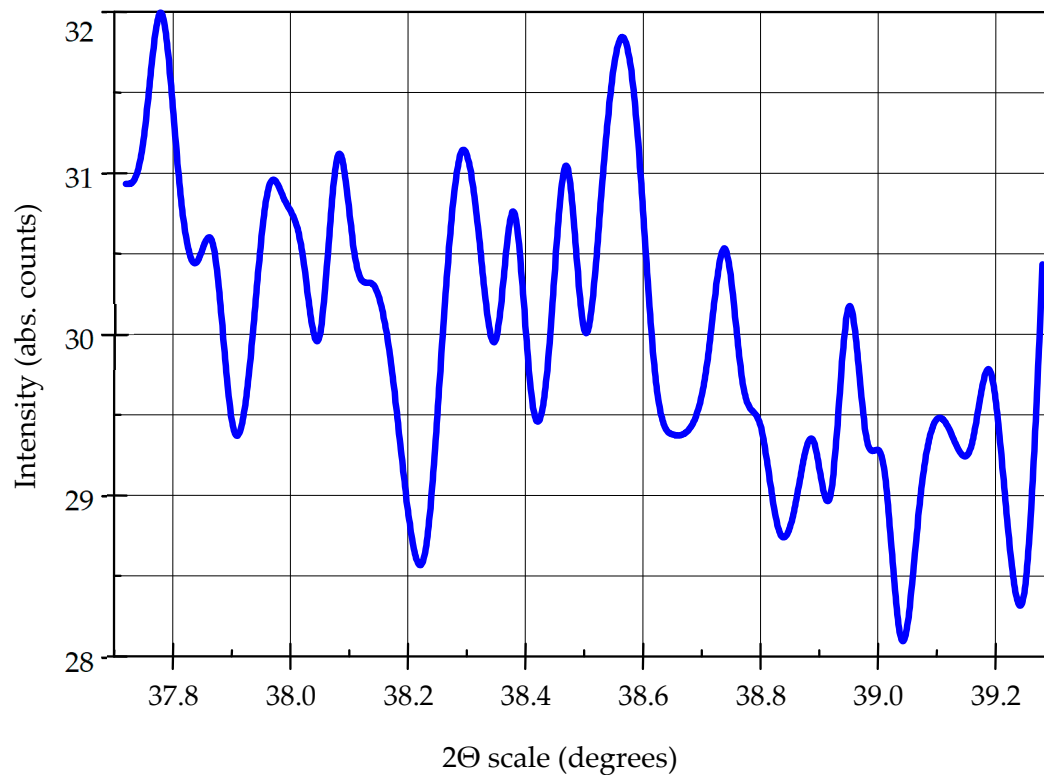


Figure S4. X-ray diffraction analysis of porous alumina film obtained in 1.0 M sulfuric acid solution at 2.0 mA·cm⁻² current density.

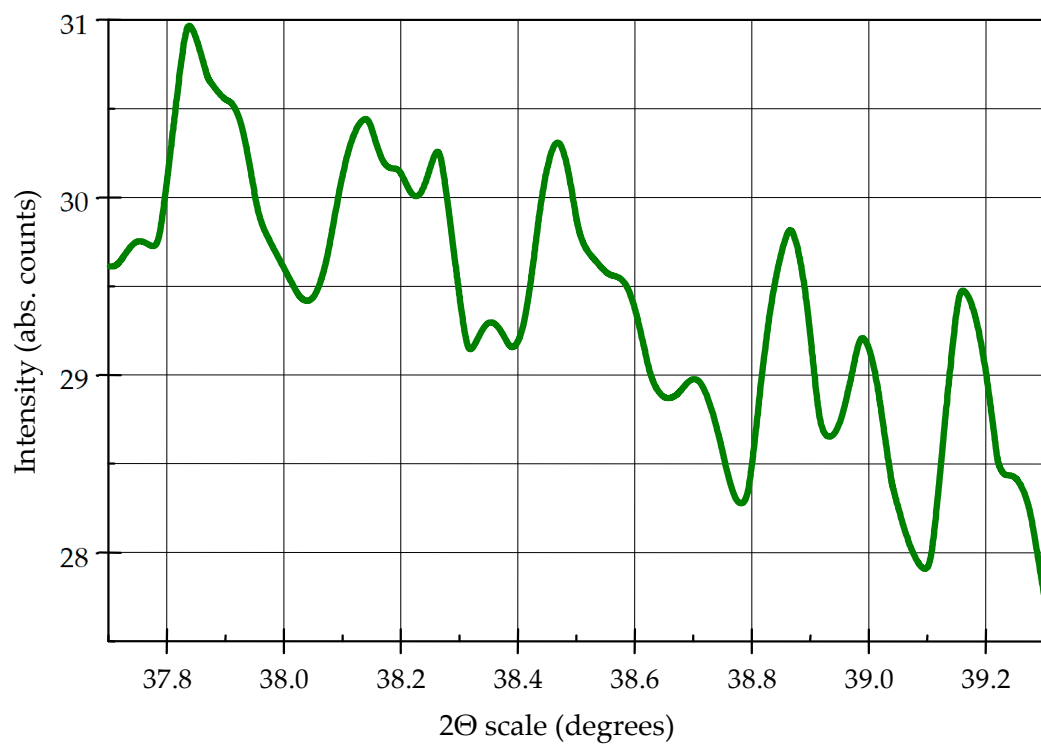


Figure S5. X-ray diffraction analysis of porous alumina film obtained in 1.0 M sulfuric acid solution at 4.05 mA·cm⁻² current density.

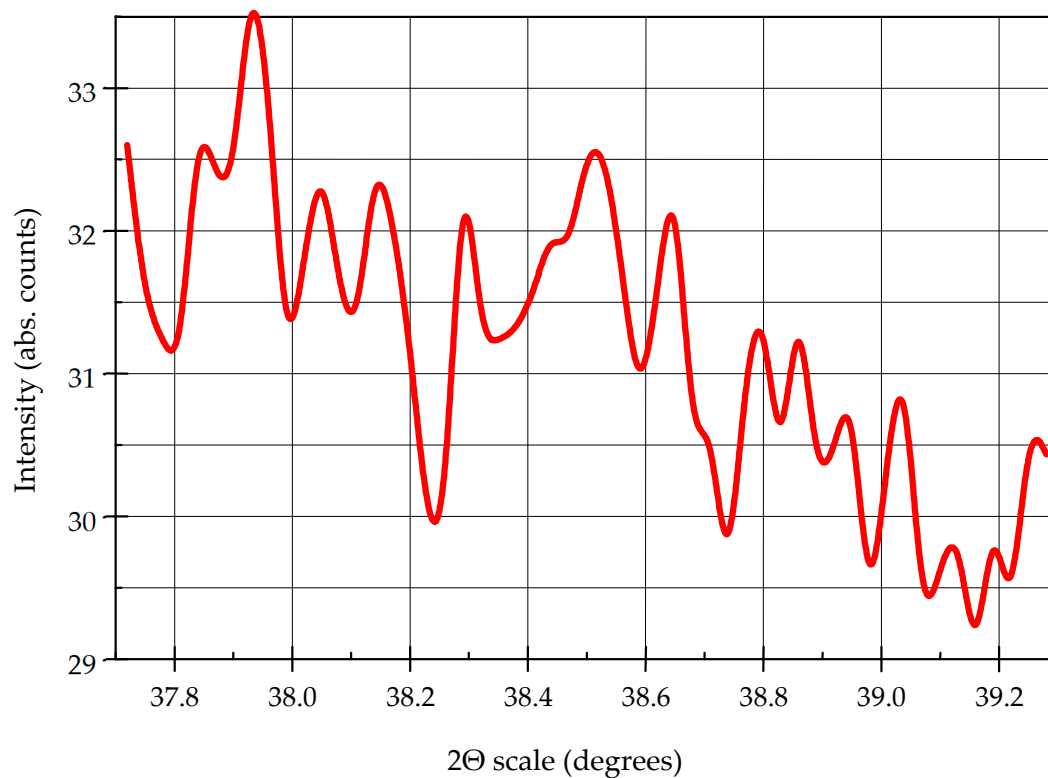


Figure S6. X-ray diffraction analysis of porous alumina film obtained in 1.0 M sulfuric acid solution at 8.0 mA·cm⁻² current density.

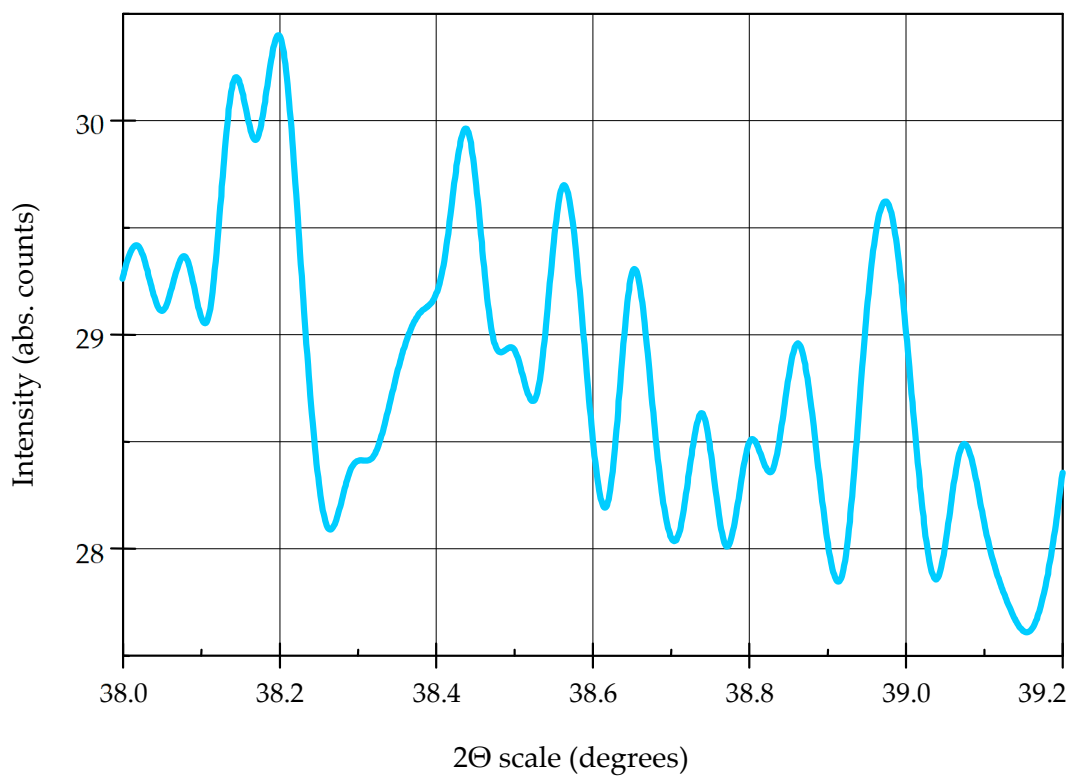


Figure S7. X-ray diffraction analysis of porous alumina film obtained in 2.0 M sulfuric acid solution at 1.5 mA·cm⁻² current density.

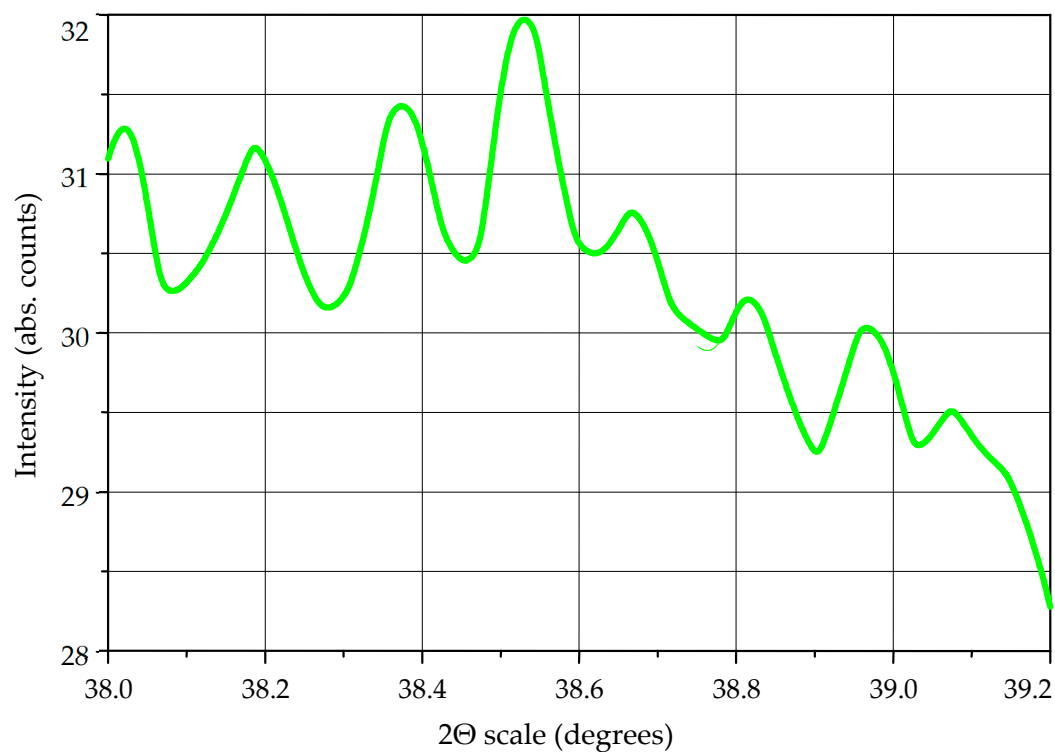


Figure S8. X-ray diffraction analysis of porous alumina film obtained in 2.0 M sulfuric acid solution at 6.1 mA·cm⁻² current density.

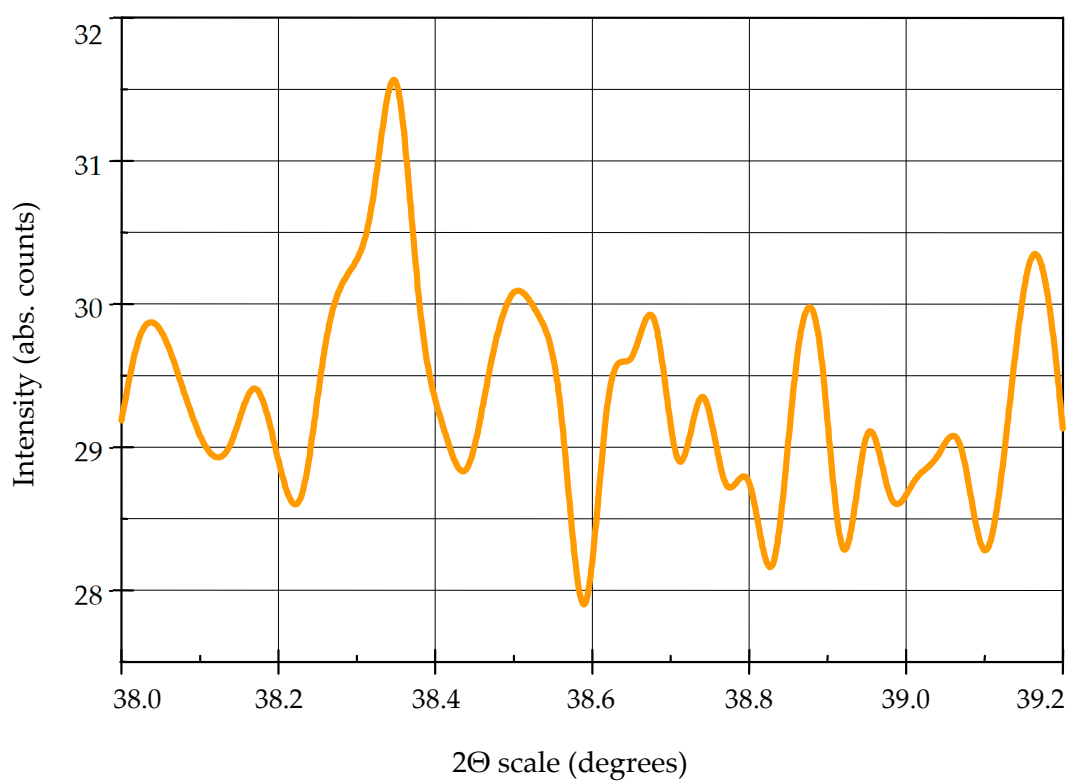


Figure S9. X-ray diffraction analysis of porous alumina film obtained in 2.0 M sulfuric acid solution at 8.7 mA·cm⁻² current density.

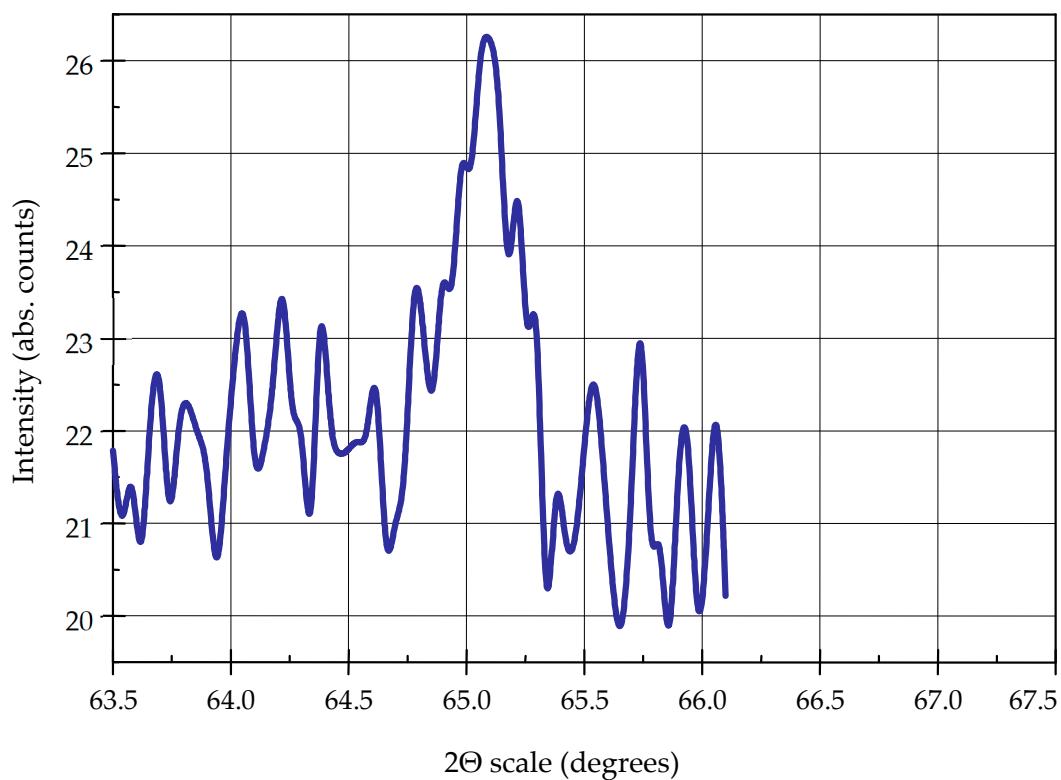


Figure S10. X-ray diffraction analysis of porous alumina film obtained in 0.4 M sulfuric acid solution at 1.5 mA·cm⁻² current density.

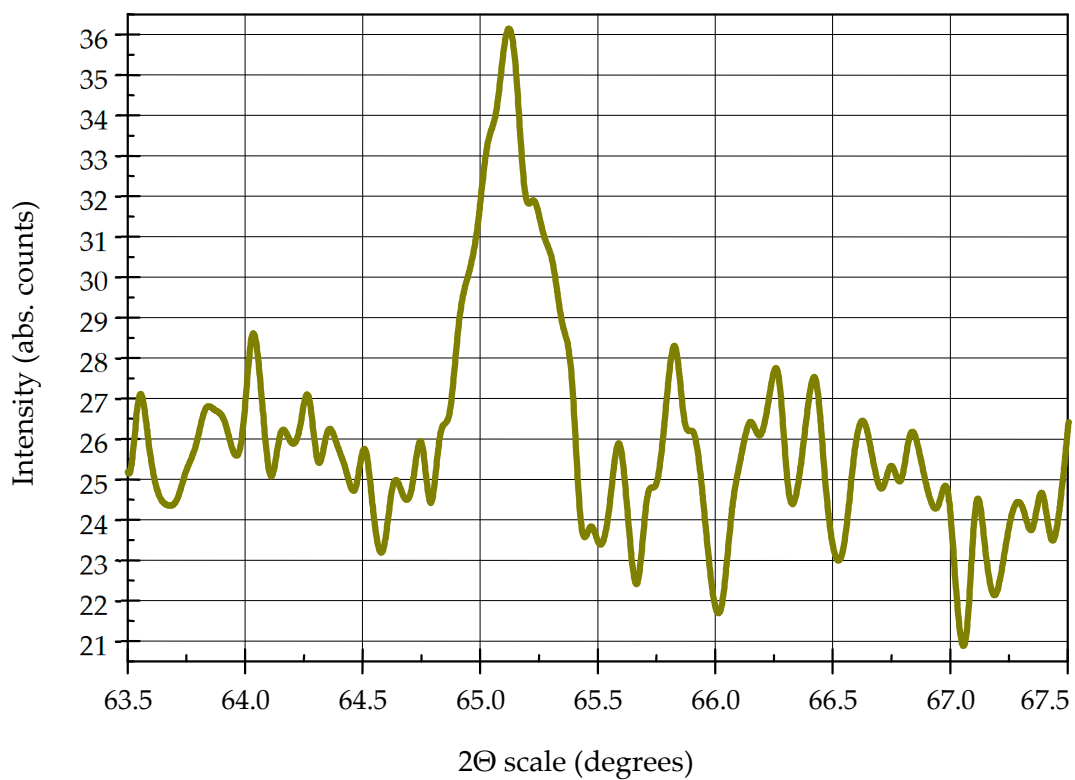


Figure S11. X-ray diffraction analysis of porous alumina film obtained in 0.4 M sulfuric acid solution at 4.25 mA·cm⁻² current density.

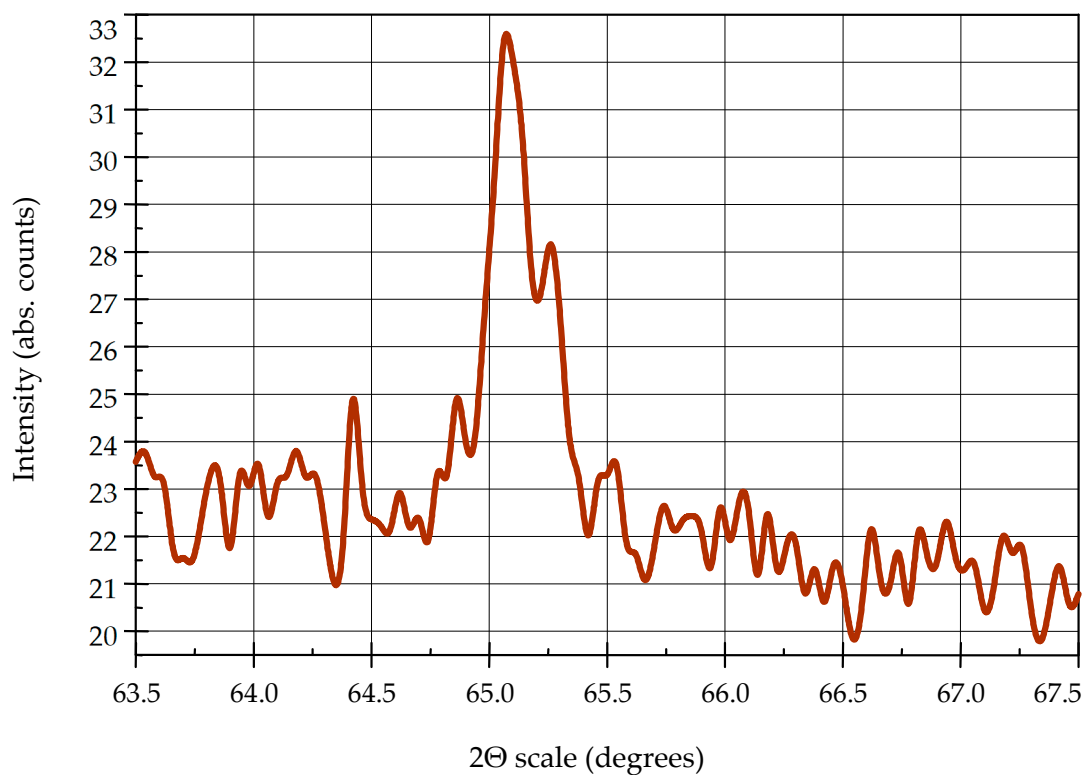


Figure S12. X-ray diffraction analysis of porous alumina film obtained in 0.4 M sulfuric acid solution at 5.0 mA·cm⁻² current density.

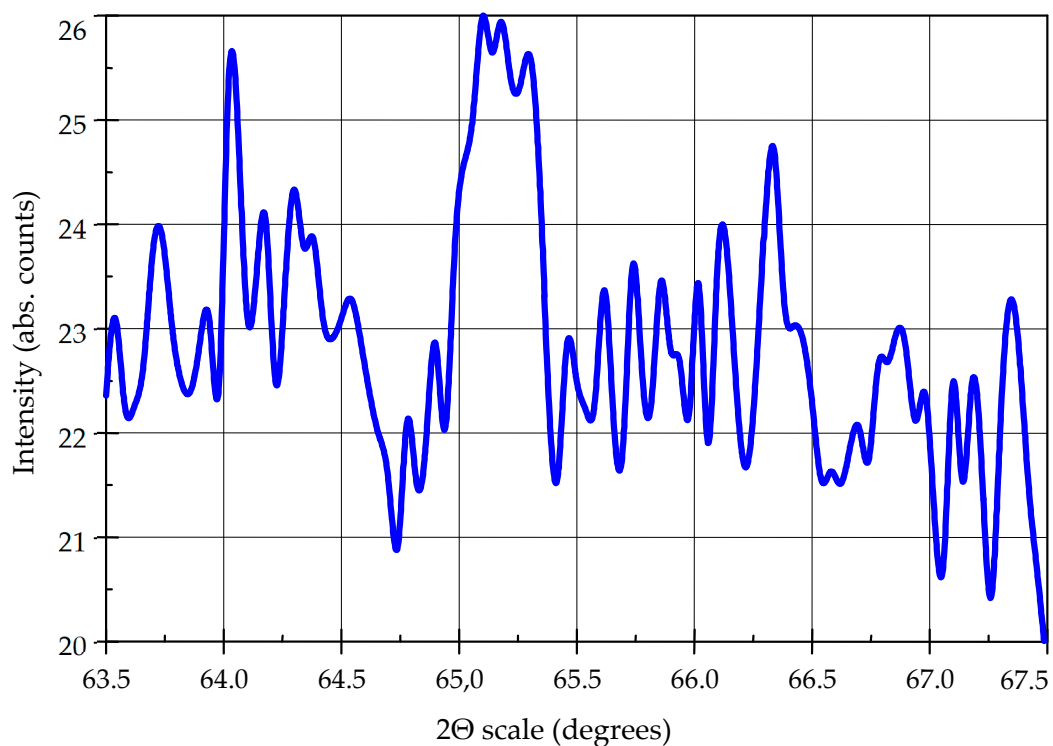


Figure S13. X-ray diffraction analysis of porous alumina film obtained in 1.0 M sulfuric acid solution at 2.0 mA·cm⁻² current density.

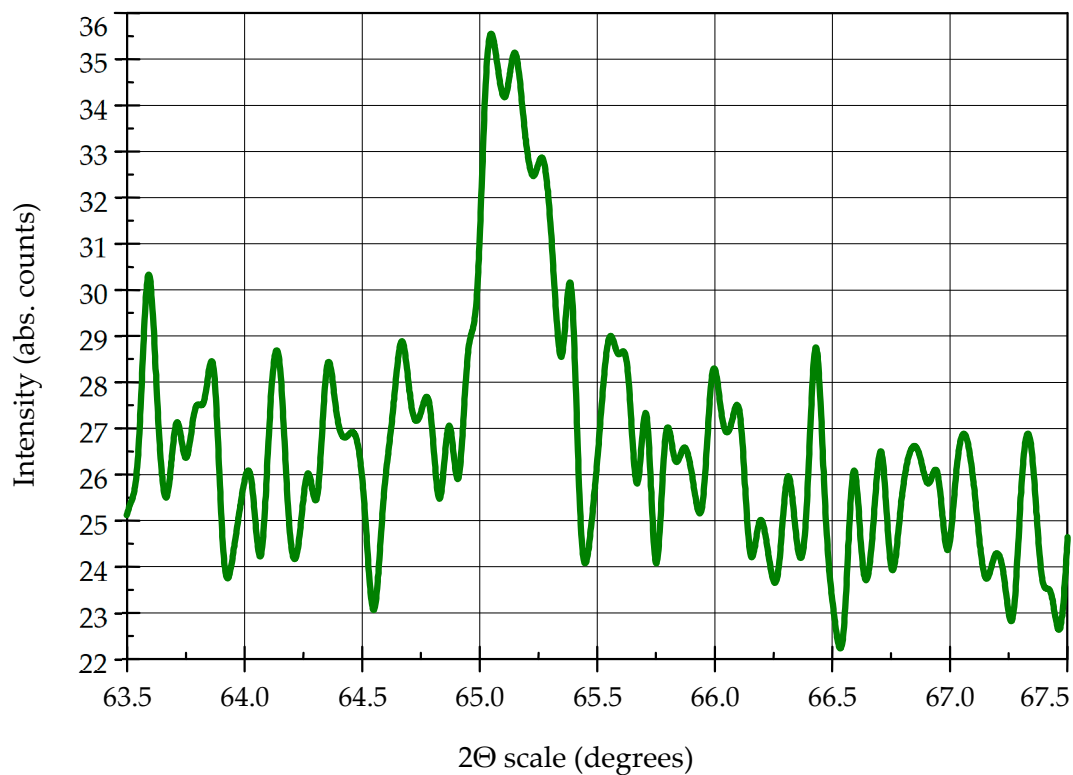


Figure S14. X-ray diffraction analysis of porous alumina film obtained in 1.0 M sulfuric acid solution at 4.05 mA·cm⁻² current density.

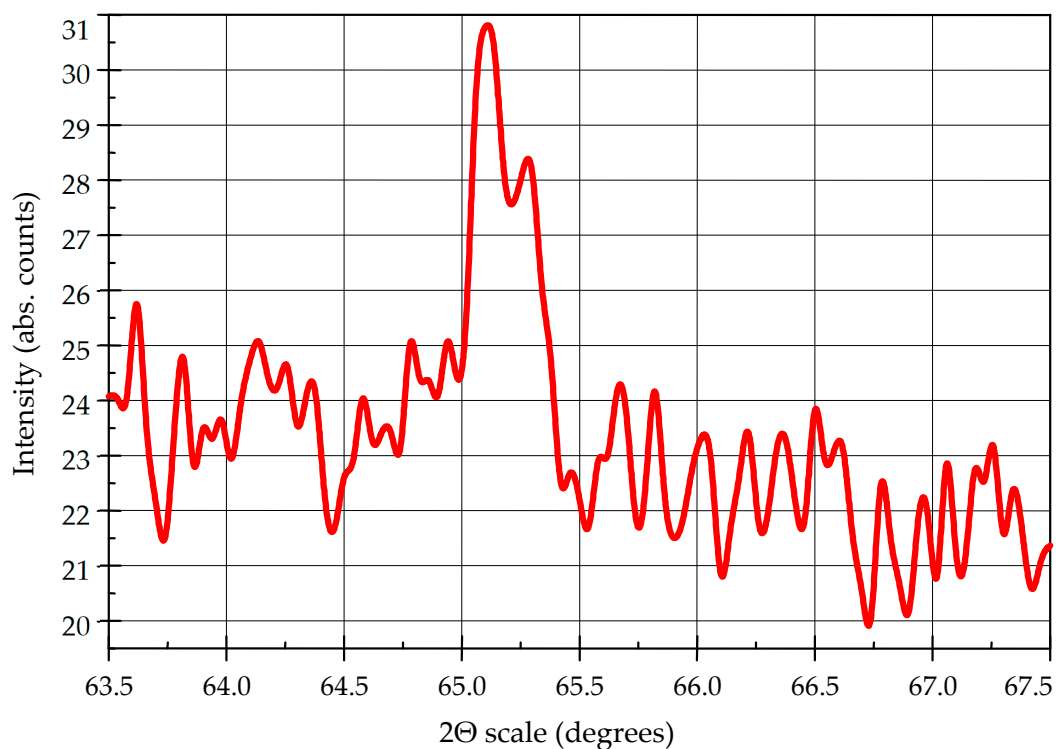


Figure S15. X-ray diffraction analysis of porous alumina film obtained in 1.0 M sulfuric acid solution at 8.0 mA·cm⁻² current density.

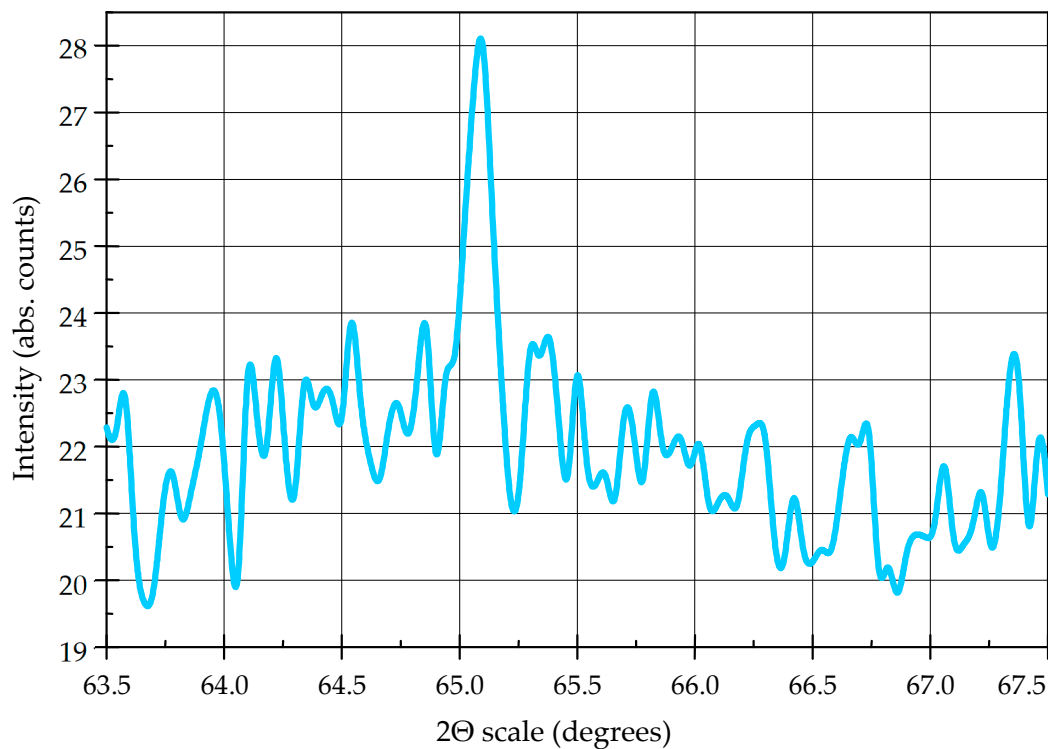


Figure S16. X-ray diffraction analysis of porous alumina film obtained in 2.0 M sulfuric acid solution at 1.5 mA·cm⁻² current density.

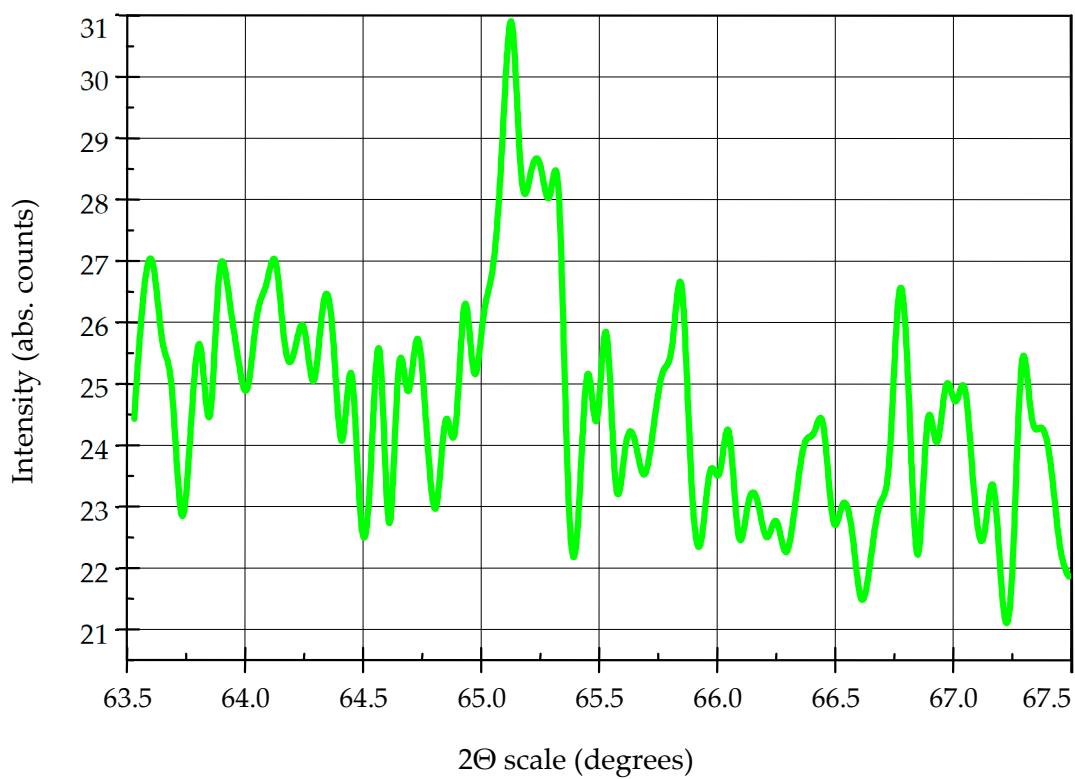


Figure S17. X-ray diffraction analysis of porous alumina film obtained in 2.0 M sulfuric acid solution at 6.1 mA·cm⁻² current density.

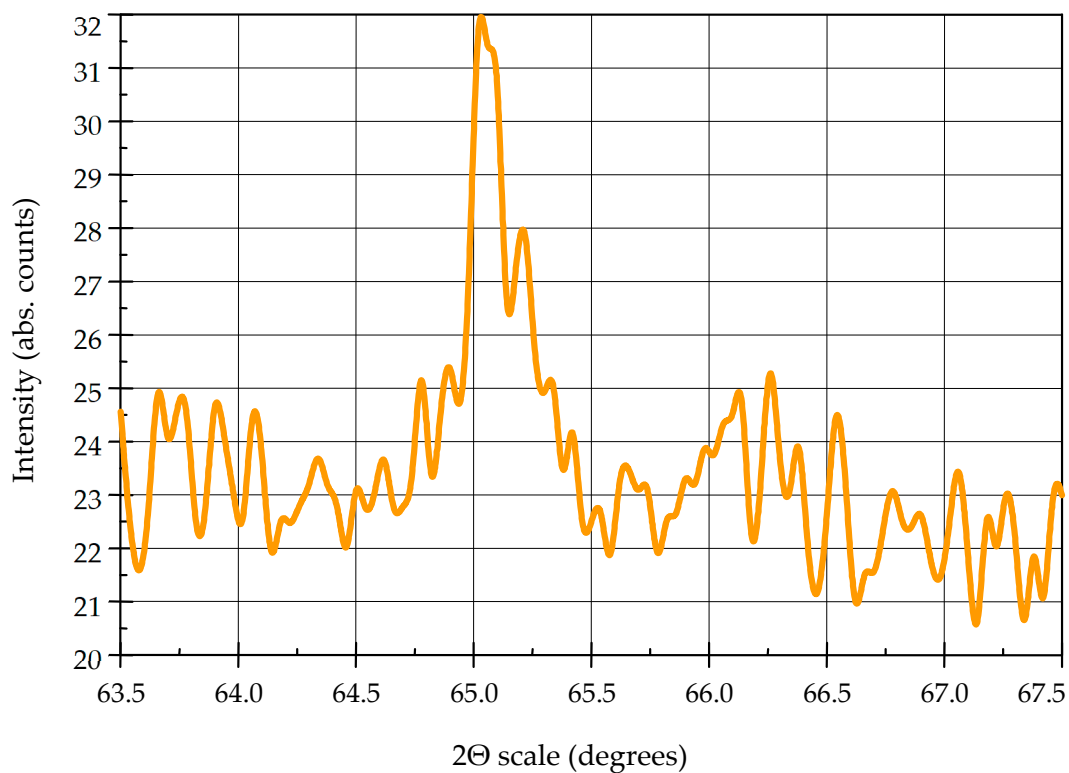


Figure S18. X-ray diffraction analysis of porous alumina film obtained in 2.0 M sulfuric acid solution at $8.7 \text{ mA}\cdot\text{cm}^{-2}$ current density.

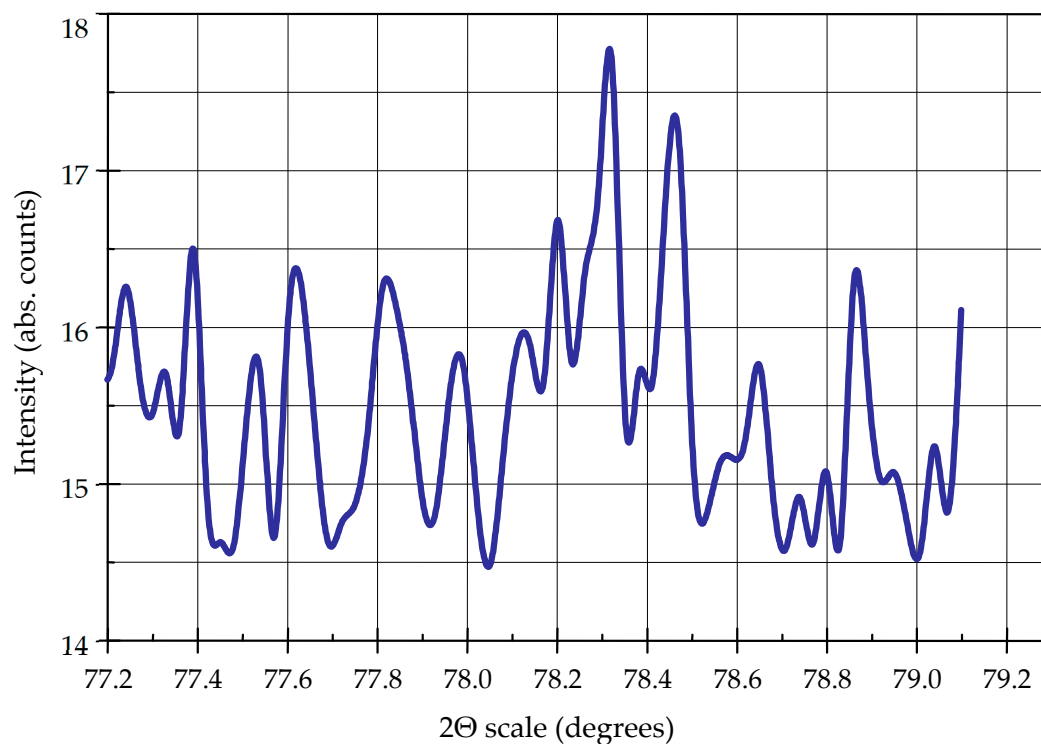


Figure S19. X-ray diffraction analysis of porous alumina film obtained in 0.4 M sulfuric acid solution at $1.5 \text{ mA}\cdot\text{cm}^{-2}$ current density.

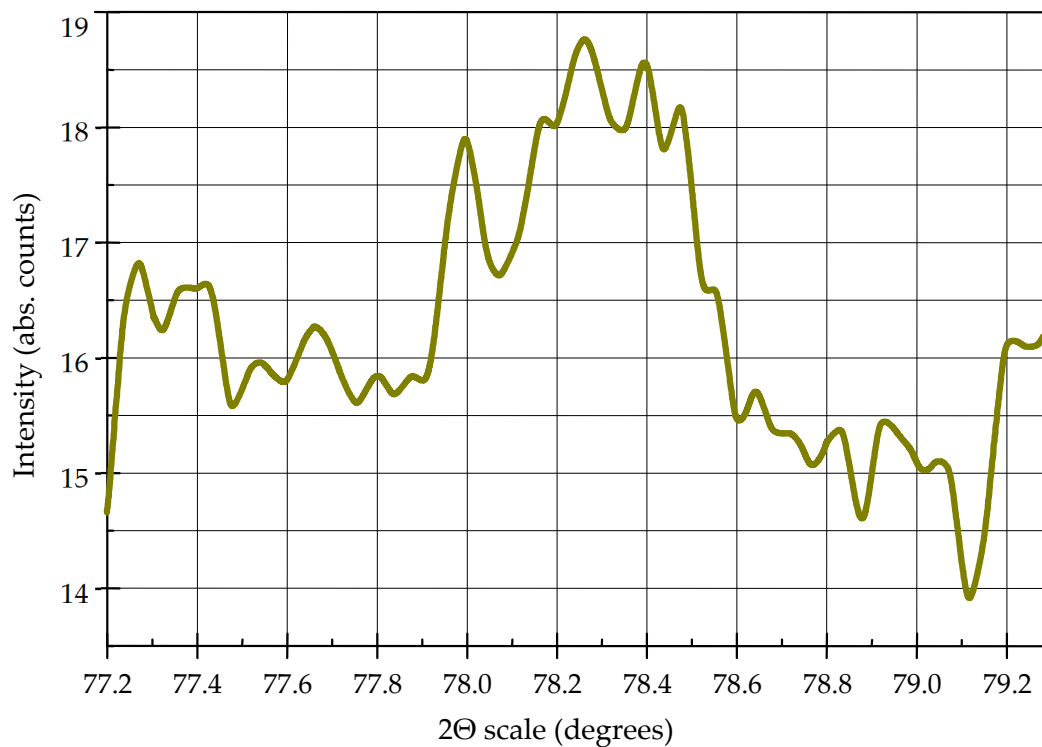


Figure S20. X-ray diffraction analysis of porous alumina film obtained in 0.4 M sulfuric acid solution at 4.25 mA·cm⁻² current density.

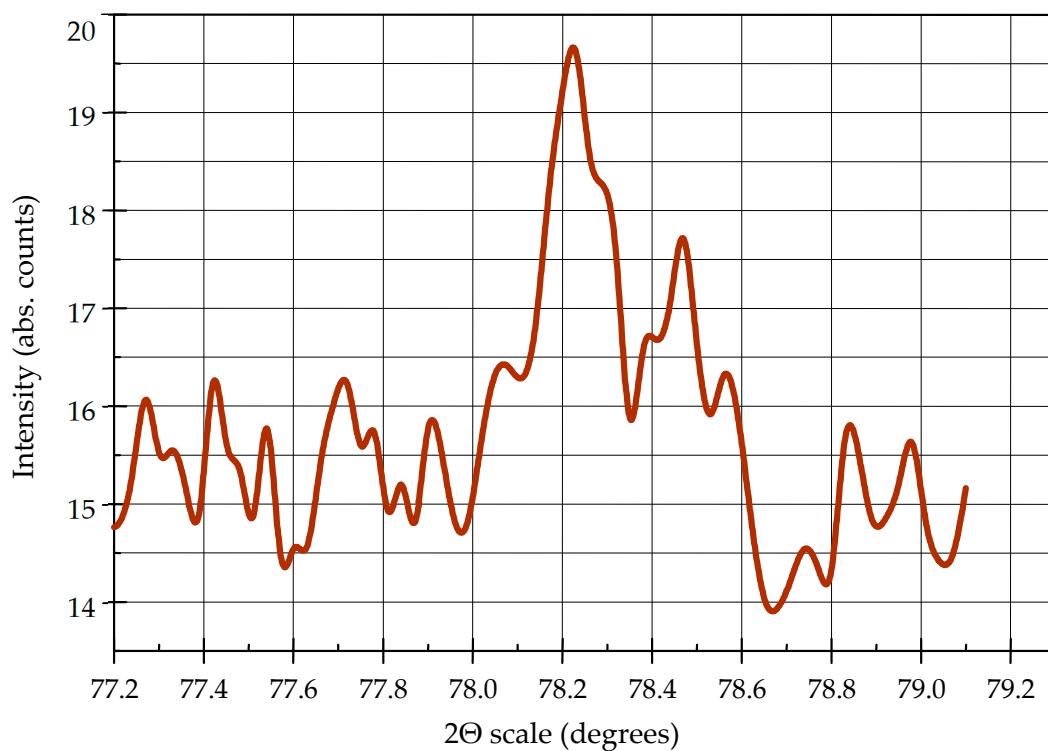


Figure S21. X-ray diffraction analysis of porous alumina film obtained in 0.4 M sulfuric acid solution at 5.0 mA·cm⁻² current density.

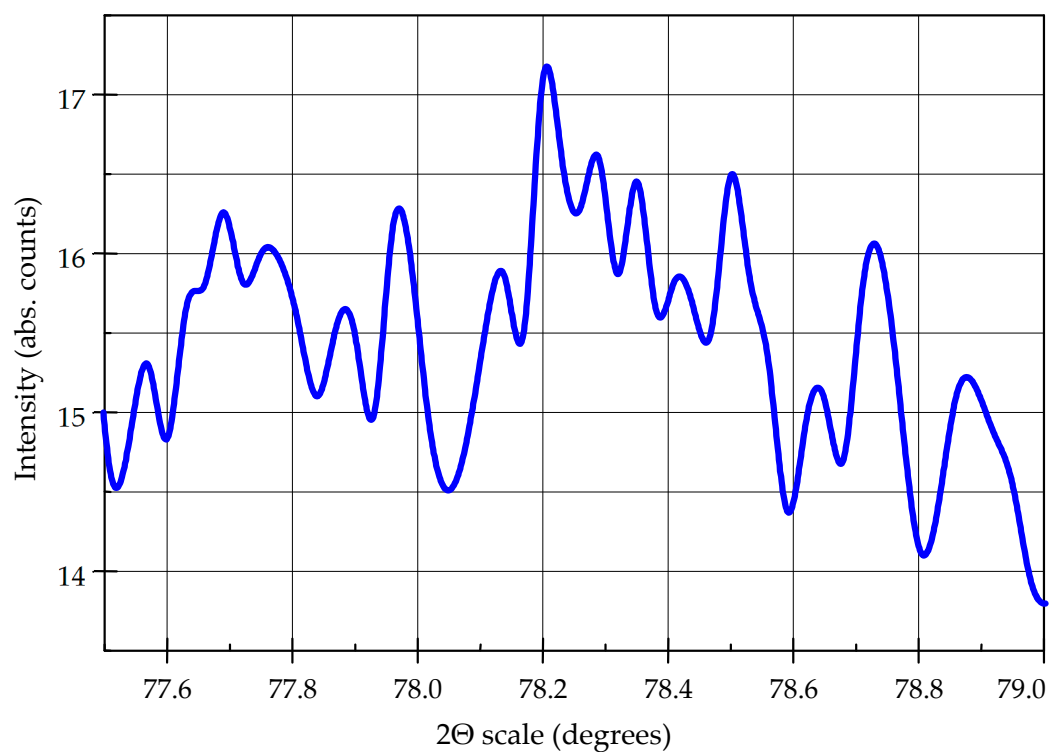


Figure S22. X-ray diffraction analysis of porous alumina film obtained in 1.0 M sulfuric acid solution at 2.0 mA·cm⁻² current density.

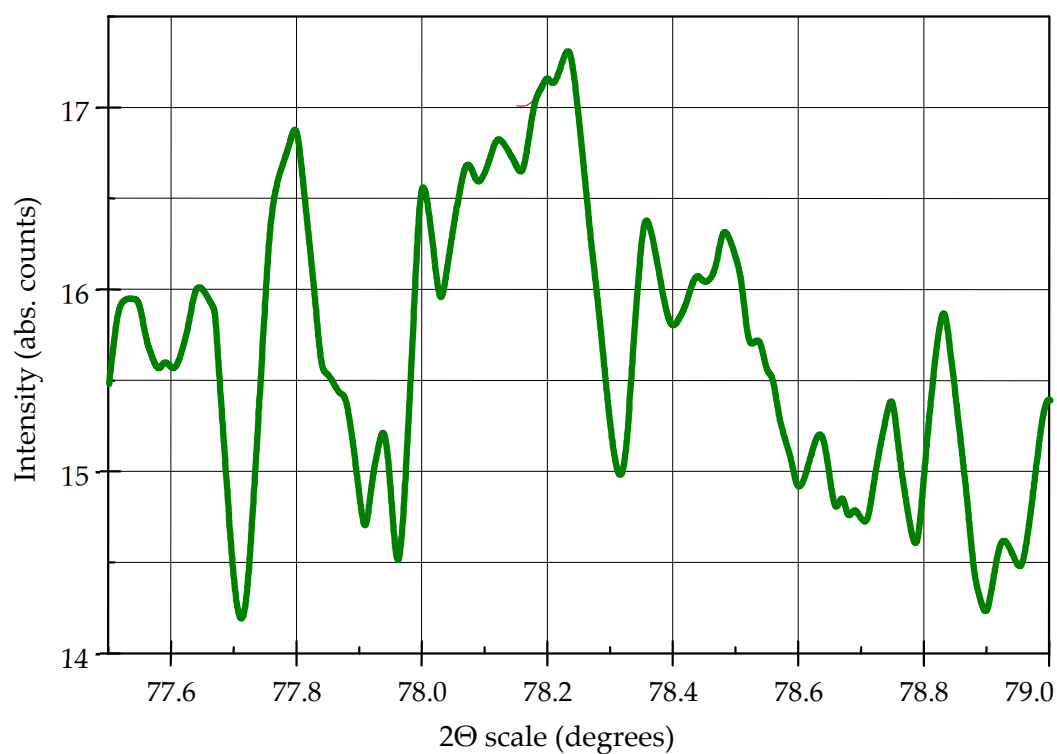


Figure S23. X-ray diffraction analysis of porous alumina film obtained in 1.0 M sulfuric acid solution at 4.05 mA·cm⁻² current density.

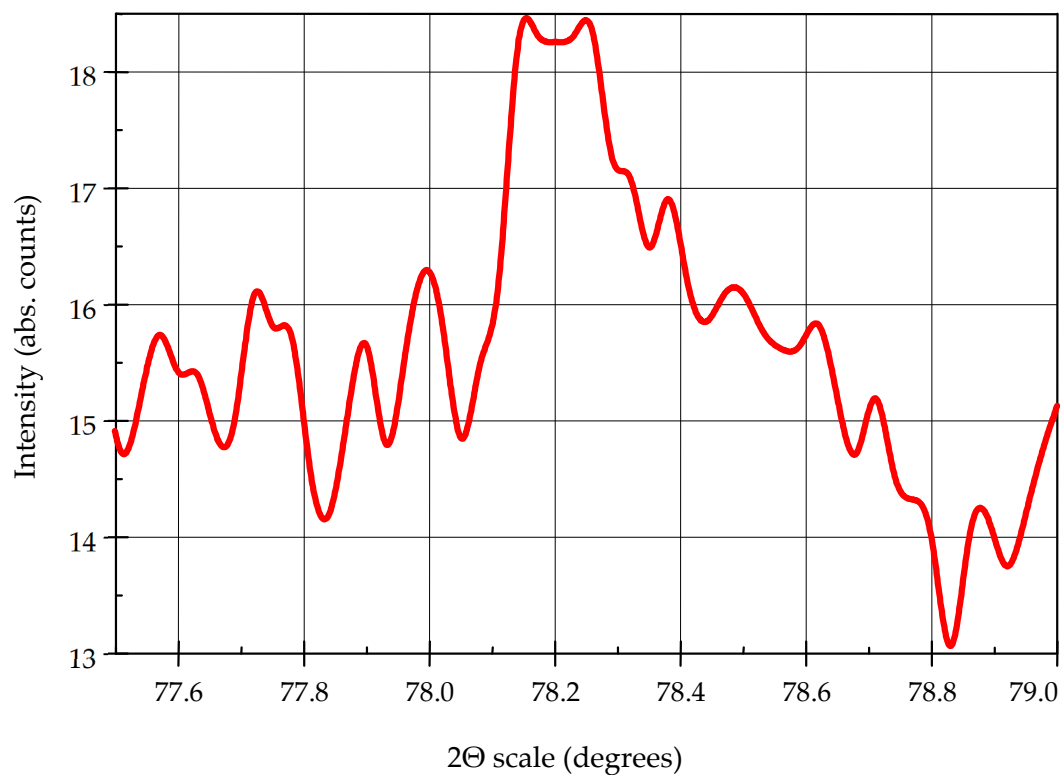


Figure S24. X-ray diffraction analysis of porous alumina film obtained in 1.0 M sulfuric acid solution at 8.0 mA·cm⁻² current density.

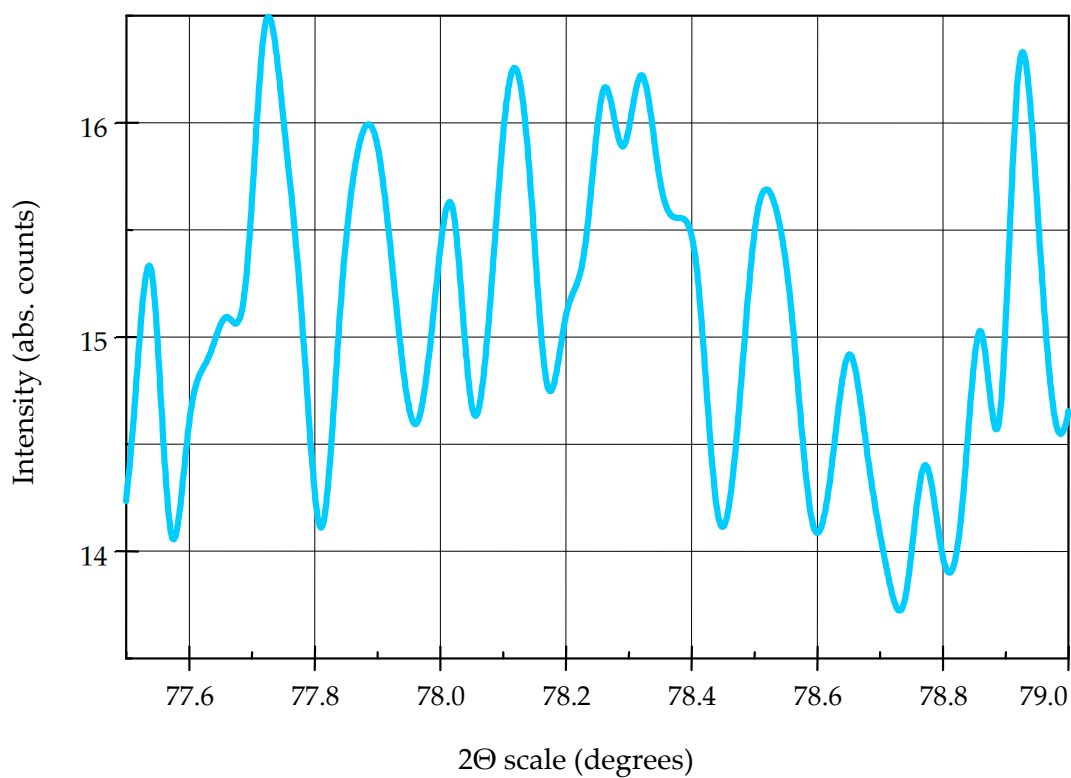


Figure S25. X-ray diffraction analysis of porous alumina film obtained in 2.0 M sulfuric acid solution at 1.5 mA·cm⁻² current density.

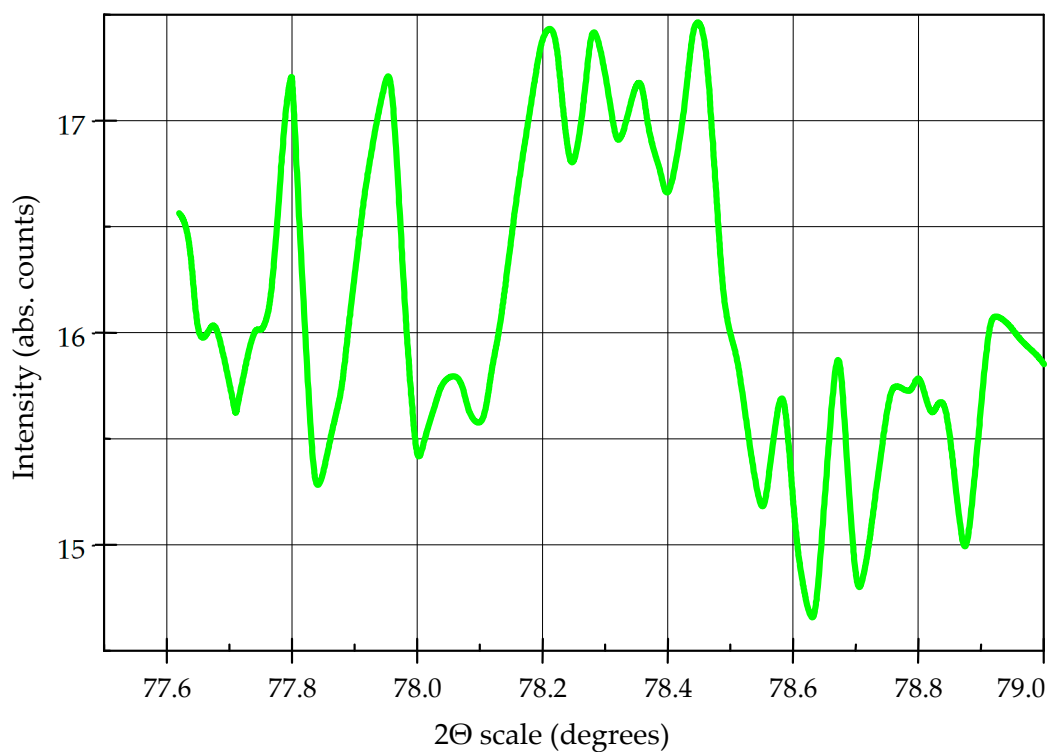


Figure S26. X-ray diffraction analysis of porous alumina film obtained in 2.0 M sulfuric acid solution at 6.1 mA·cm⁻² current density.

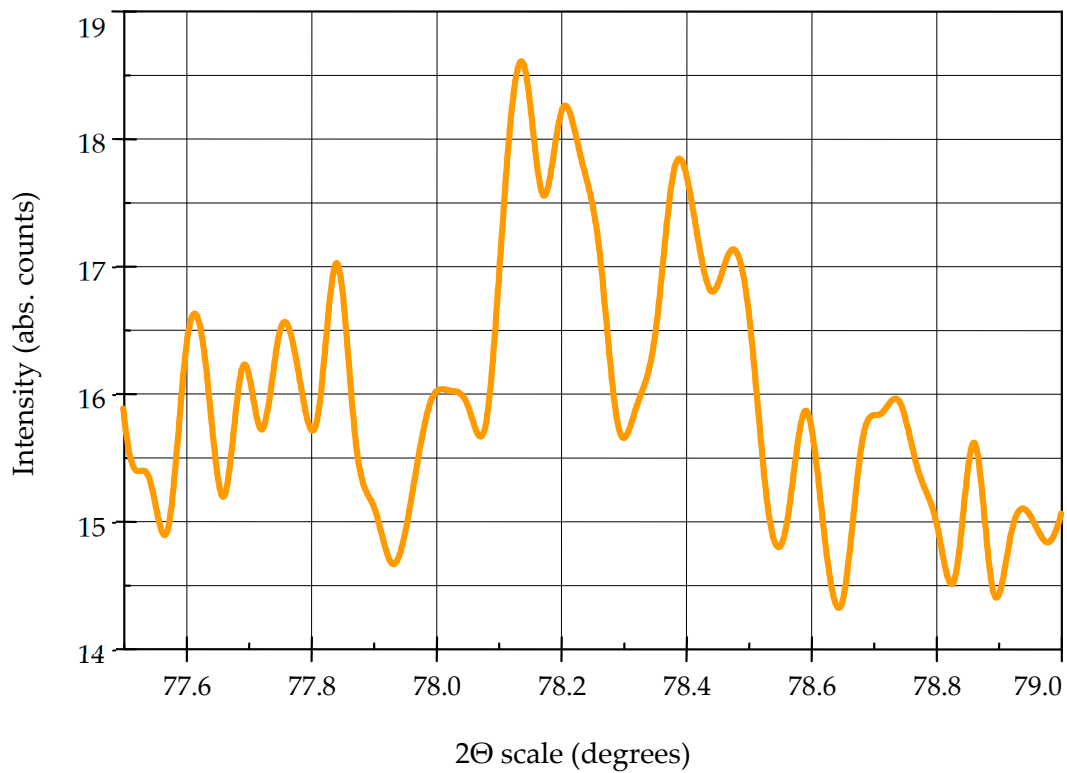


Figure S27. X-ray diffraction analysis of porous alumina film obtained in 2.0 M sulfuric acid solution at 8.7 mA·cm⁻² current density.