

Supporting Information

**Influence of the Al content on the *in vitro* bioactivity and biocompatibility
of PVD Ti_{1-x}Al_xN coatings for orthopedic applications**

*A. Esguerra-Arce*¹

¹Grupo de investigación en Tribología-Polímeros-Metalurgia de Polvos y Residuos Sólidos,
TPMR, Universidad del Valle, Calle 13 No. 100-00, Cali, Colombia

*J. Esguerra-Arce*¹

¹Grupo de investigación en Tribología-Polímeros-Metalurgia de Polvos y Residuos Sólidos,
TPMR, Universidad del Valle, Calle 13 No. 100-00, Cali, Colombia

*L. Yate*²

²Soft Material Nanotechnology, CIC biomaGUNE, Paseo Miramón 182, 20009 Donostia-
San Sebastian, Spain

*C. Amaya*³

³GIDEMP, ASTIN-SENA, Calle 52 No.2 Bis-15, Cali, Colombia

*Emerson Coy*⁴

⁴NanoBioMedical Centre AMU, Adam Mickiewicz University, Umultowska 85A, 61-614
Poznan, Poland

*Y. Aguilar*¹

¹TPMR, Universidad del Valle, Calle 13 No. 100-00, Cali, Colombia

*O. Gutiérrez*⁵

⁵Grupo de Farmacología, Universidad del Valle, Calle 4B No 36-00, Cali, Colombia

*S. Moya*²

²Soft Material Nanotechnology, CIC biomaGUNE, Paseo Miramón 182, 20009 Donostia-San Sebastian, Spain

Corresponding author:

Adriana Esguerra Arce

Grupo de investigación en Tribología-Polímeros-Metalurgia de polvos y Residuos sólidos,
TPMR, Universidad del Valle

Calle 13 # 100 – 00

A.A. 25360

Cali Colombia

Phone: +57 2 3394610

Mail: adriana.esguerra.arce@gmail.com

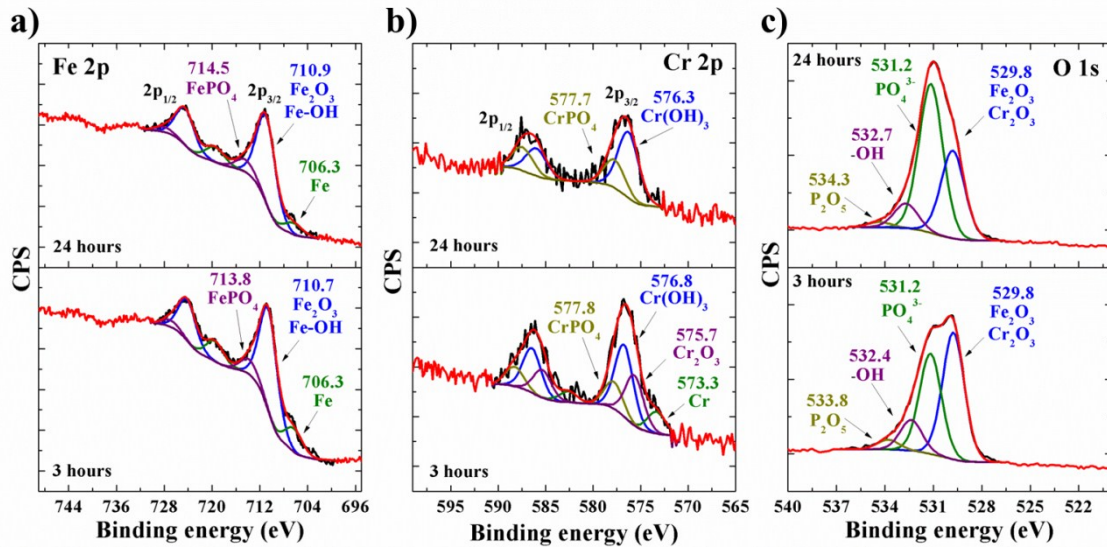


Figure A Fe 2p, Cr 2p and O 1s high resolution spectra of 304ss after 3 and 24 hours of exposure to SBF

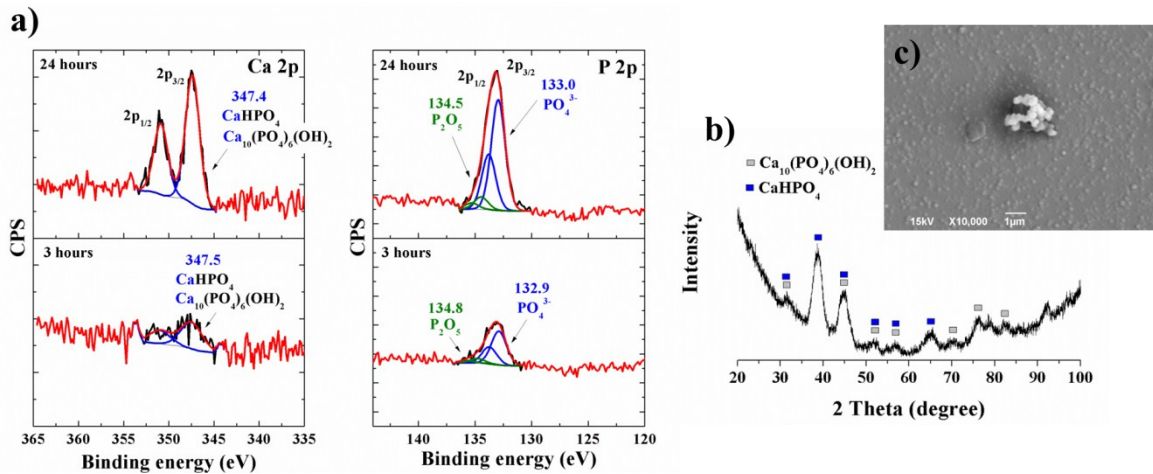


Figure B Ca y P 2p XPS high resolution spectra of 304ss after 3 and 24 hours of exposure to SBF (a), and diffractogram pattern (b) and SEM image (c) after 31 days of exposure to SBF

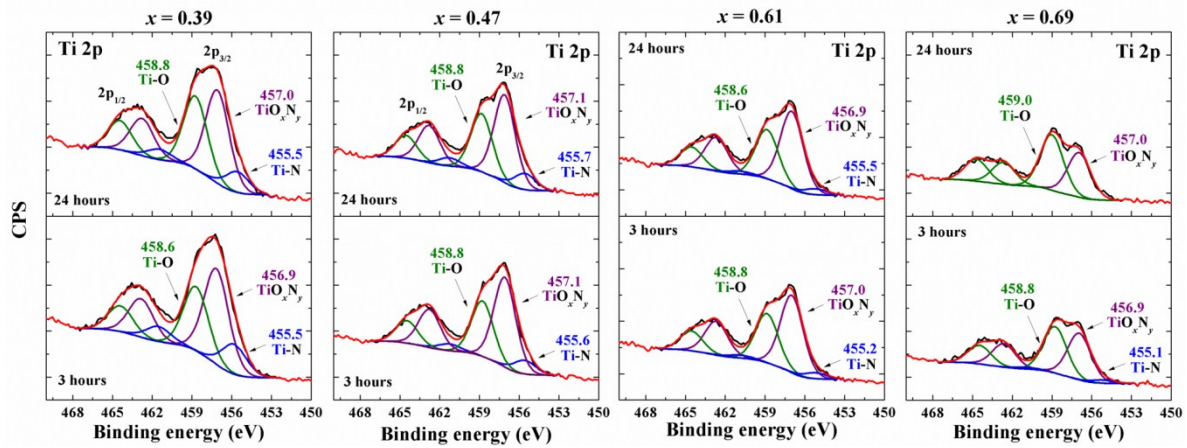


Figure C Ti 2p high resolution spectra of $Ti_{1-x}Al_xN$ after 3 and 24 hours of exposure to SBF

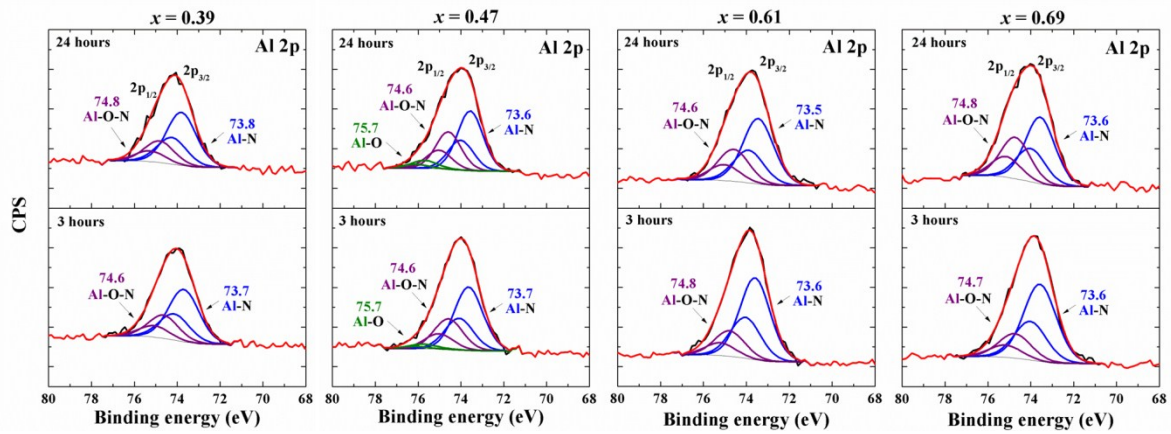


Figure D Al 2p high resolution spectra of $Ti_{1-x}Al_xN$ after 3 and 24 hours of exposure to SBF