

# Electronic Supporting Information (ESI)

## Precipitation Stripping of V(V) as a Novel Approach for the Preparation of Two-Dimensional Transition Metal Vanadates

María Guadalupe Sánchez-Loredo <sup>1,2,\*</sup>, Paul Chekhonin <sup>3</sup>, Doreen Ebert <sup>1</sup>, Ulrike Fischer <sup>1</sup>, Xu Liu <sup>4,5</sup>, Robert Möckel <sup>1</sup>, Gladis Judith Labrada-Delgado <sup>6</sup>, Stefano Passerini <sup>4,5,7</sup> and Norman Kelly <sup>1</sup>

<sup>1</sup> Helmholtz-Zentrum Dresden-Rossendorf (HZDR), Helmholtz-Institut Freiberg für Ressourcentechnologie (HIF), Chemnitz Str. 40, 09599 Freiberg, Germany; d.ebert@hzdr.de (D.E.); u.fischer@hzdr.de (U.F.); r.moeckel@hzdr.de (R.M.); n.kelly@hzdr.de (N.K.)

<sup>2</sup> Instituto de Metalurgia, Facultad de Ingeniería, Universidad Autónoma de San Luis Potosí, Sierra Leona 550, San Luis Potosí 78210, Mexico

<sup>3</sup> Helmholtz-Zentrum Dresden-Rossendorf, Institut für Ressourcenökologie, Bautzner Landstraße 400, 01328 Dresden, Germany; p.chekhonin@hzdr.de

<sup>4</sup> Helmholtz Institute Ulm (HIU), Helmholtzstraße 11, 89081 Ulm, Germany; xu.liu@kit.edu (X.L.); stefano.passerini@kit.edu (S.P.)

<sup>5</sup> Karlsruhe Institute of Technology (KIT), P.O. Box 3640, 76021 Karlsruhe, Germany

<sup>6</sup> Instituto Potosino de Investigación Científica y Tecnológica, Camino a la Presa San José 2055, San Luis Potosí 78216, Mexico; gladis.labrada@ipicyt.edu.mx

<sup>7</sup> Chemistry Department, Sapienza University of Rome, Piazzale Aldo Moro 5, I-00185 Rome, Italy

\* Correspondence: msanchez@uaslp.mx

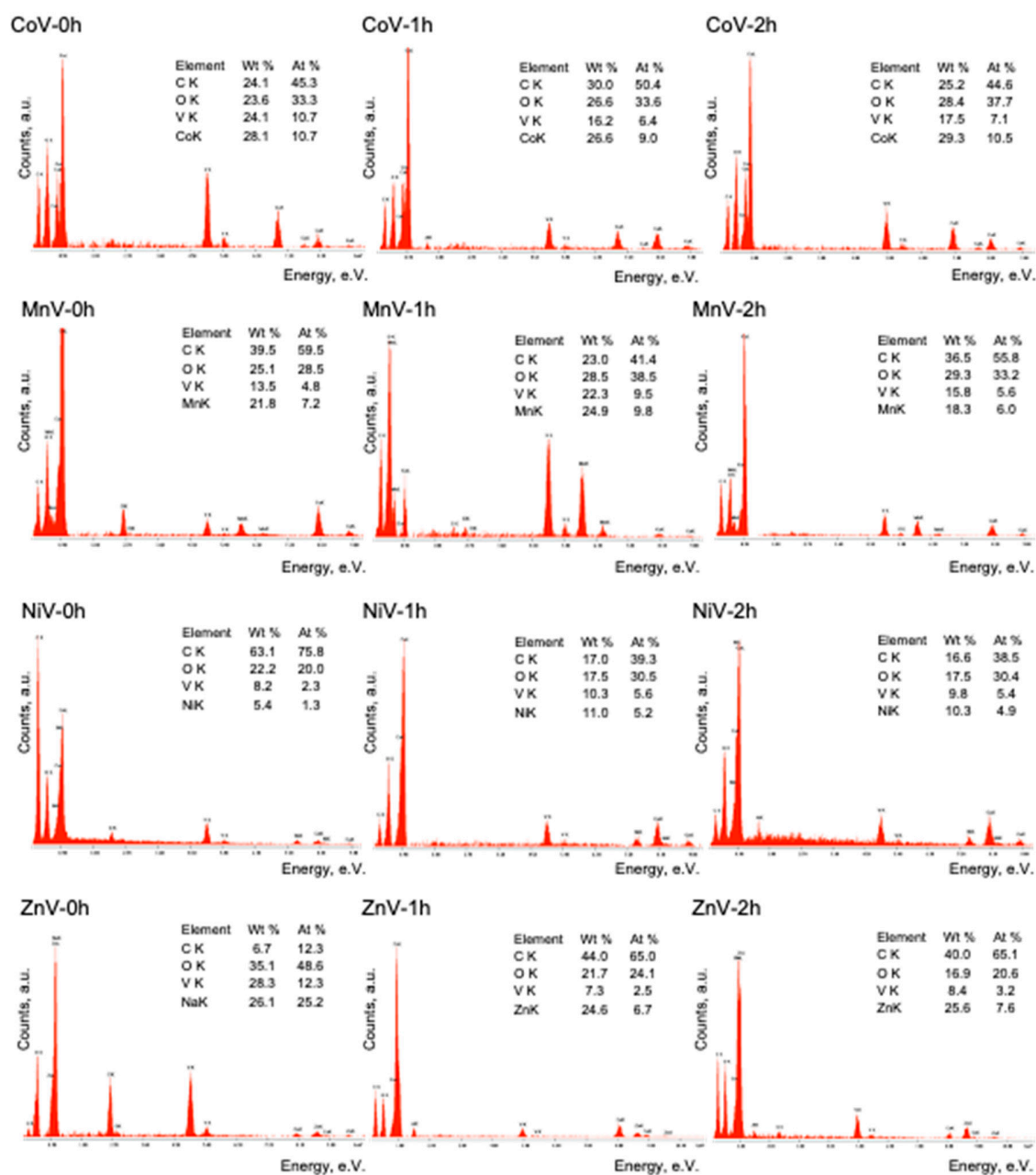


Figure S1. EDS spectra of the metal vanadates obtained at different addition times

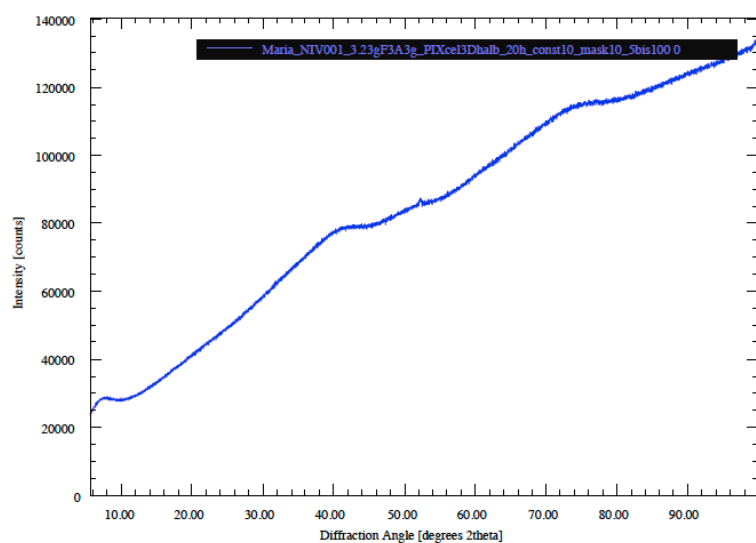
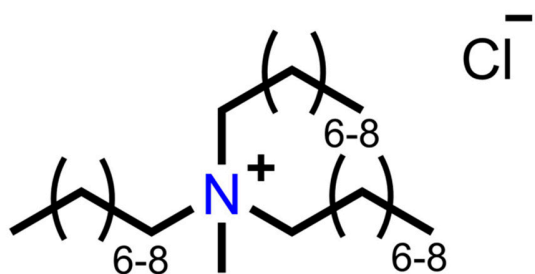


Figure S2. XRD pattern of nickel vanadate product (addition time 1 h)



## Aliquat 336

Figure S3. Structure of Aliquat®336

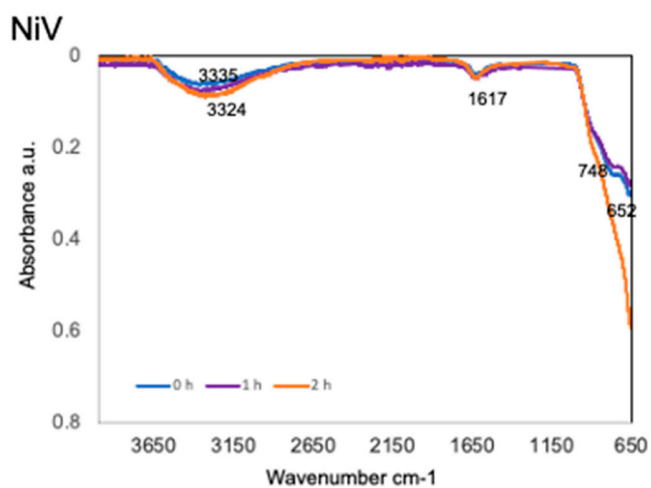
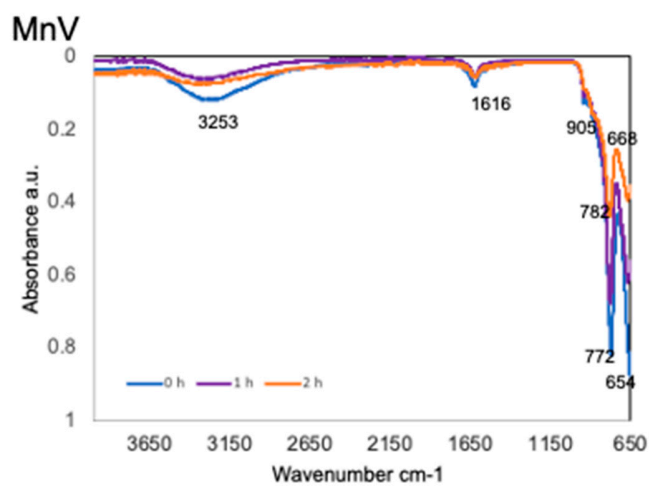
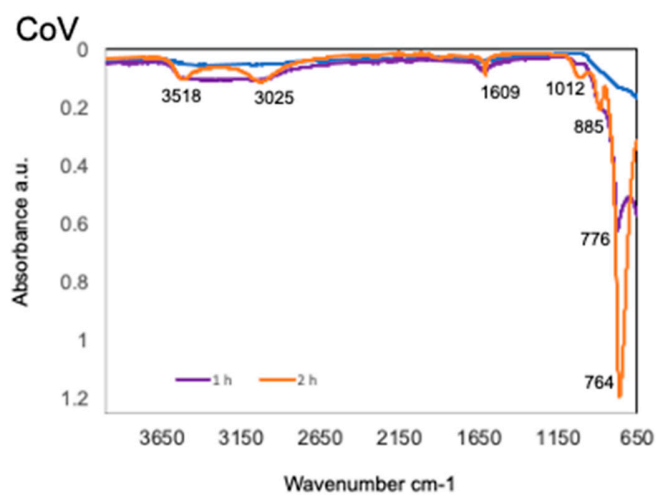


Figure S4. ATR spectra of cobalt, manganese and nickel vanadate powders prepared by precipitation stripping from Aliquat 336 organic solutions