A Novel Microporous Copper Silicate: 
Na$_2$Cu$_2$Si$_4$O$_{11}$·2H$_2$O

Supporting Information

Paula Brandão, Filipe A. Almeida Paz and João Rocha*

Department of Chemistry, CICECO, University of Aveiro, 3810-193 Aveiro, Portugal
Fax: +(351) 234 370084; Tel: +(351) 234 370730; E-mail: rocha@dq.ua.pt
**Fig. S1** Comparison between the experimental (top) and simulated (bottom) powder X-ray patterns for AV-23. Data were collected at ambient temperature using the step counting method (step 0.03°, time 3.5s) on a X’Pert MPD Philips diffractometer (CuKα X-radiation) with a curved graphite monochromator, a fix divergence slit of 1/4°, and a flat plate sample holder, in a Bragg-Brentano para-focusing optics configuration. The simulated powder pattern was based on single-crystal data and calculated using the Mercury Version 1.2 software package from CCDC.

**Fig. S2** Comparison between the powder X-ray patterns for as-synthesised AV-23 and the calcined material at 300 °C for six hours. Data were collected at ambient temperature using the step counting method (step 0.05°, time 1.0s) on a X’Pert MPD Philips diffractometer (CuKα
X-radiation) with a curved graphite monochromator, a fix divergence slit of 1/4º, and a flat plate sample holder, in a Bragg-Brentano para-focusing optics configuration.

**Fig. S3** Thermogravimetric analysis of as-synthesised and calcined AV-23. Data were measured on a Shimadzu TGA 50, with a heating rate of 10°C/min, under nitrogen atmosphere with flow rate of 20 cm³/min.