Electronic Supplementary Material (ESI) for Nanoscale.

Electronic Supplementary Information (ESI)

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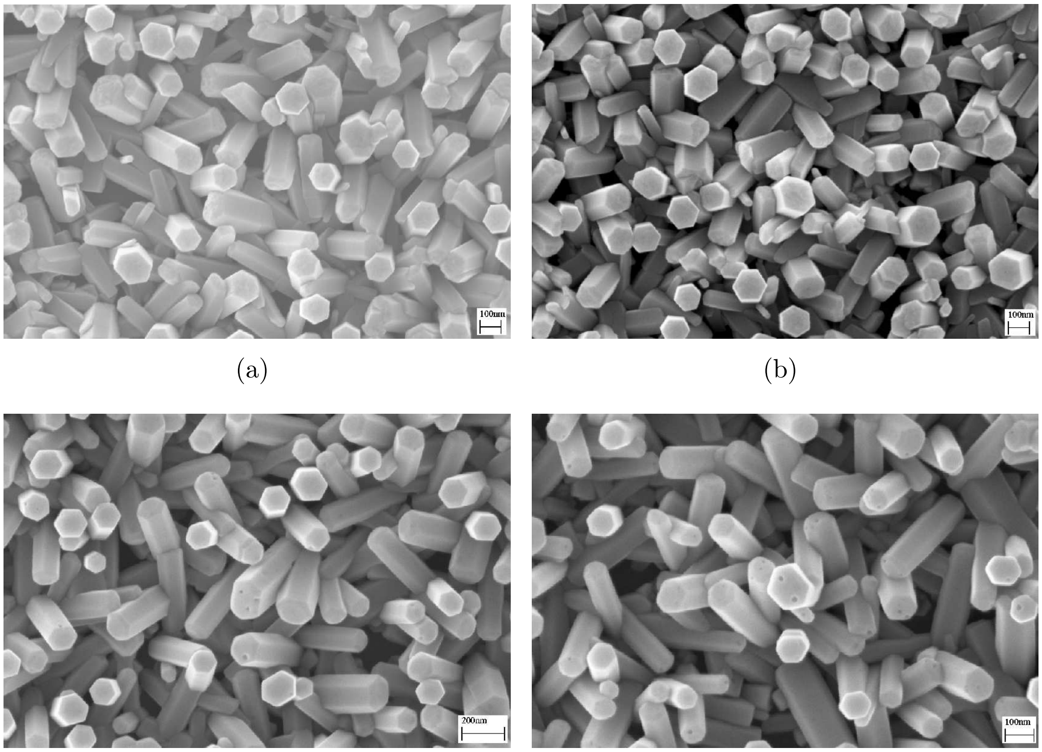
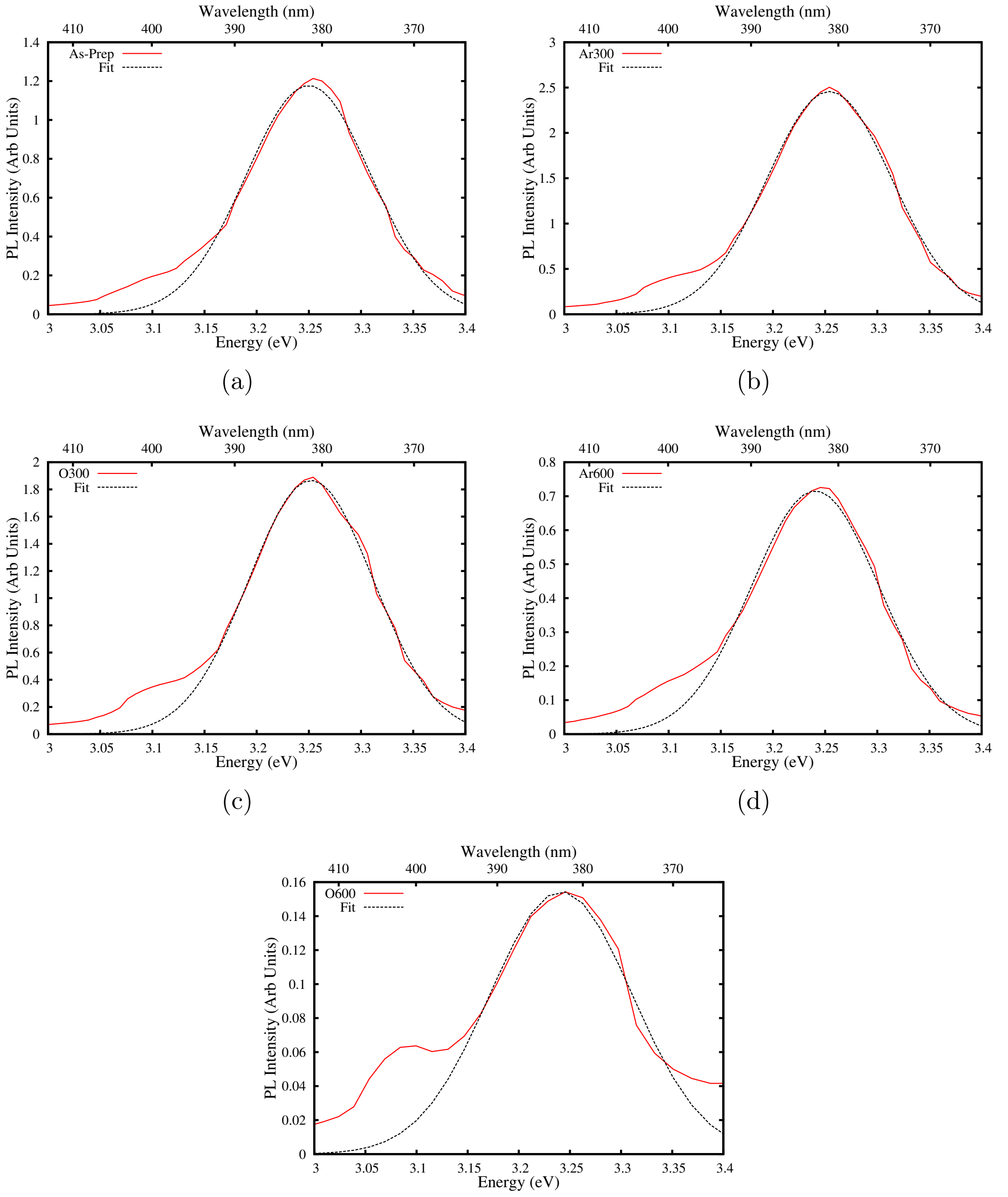


(a) (b) (c) (d)

Figure S1: Plane view SEM image of S1(a): Ar300, S1(b): O300, S1(c): Ar600, S1(d): O600. A slight texturing and small pits can be seen on the tips of the NRs annealed at 300 ^{o}C and 600 ^{o}C, respectively.



(a)

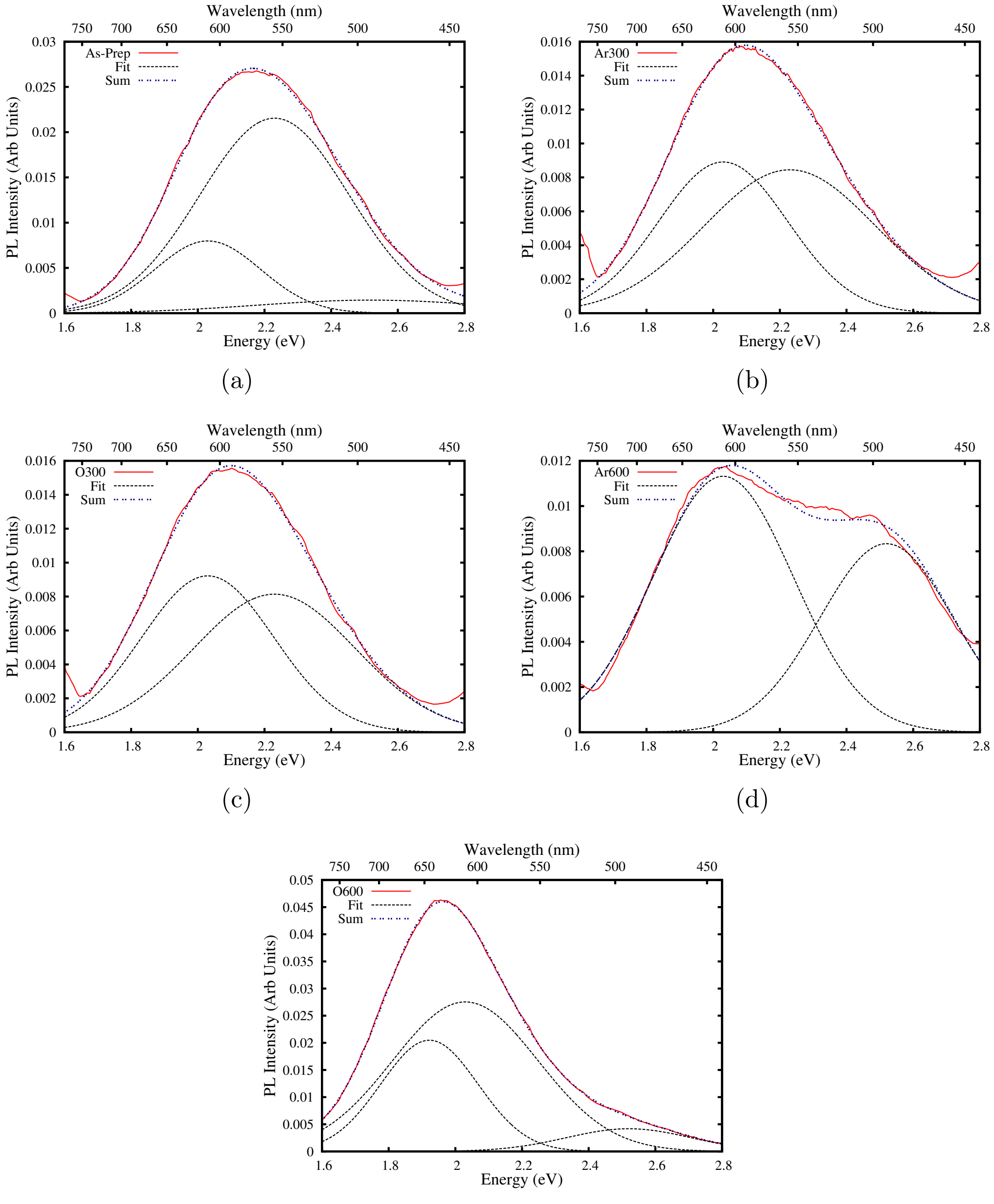
(b)

(c)

(d)

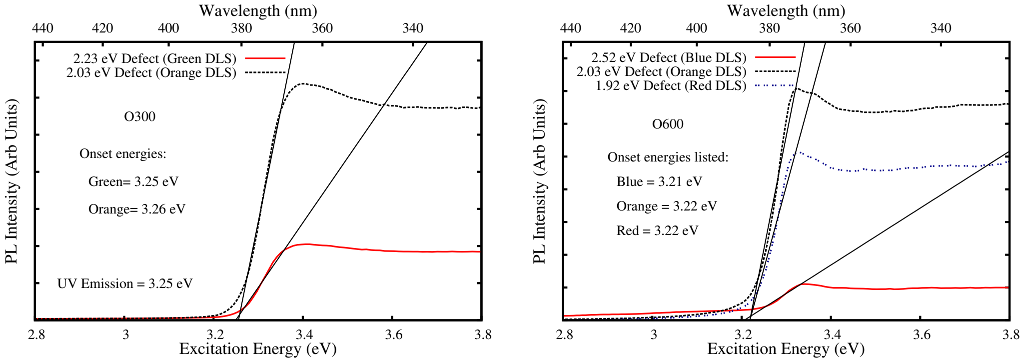
(e)

Figure S2: UV emission peak fits for the indicated samples. Note that the feature around 3.1 eV is an artefact of the laser.



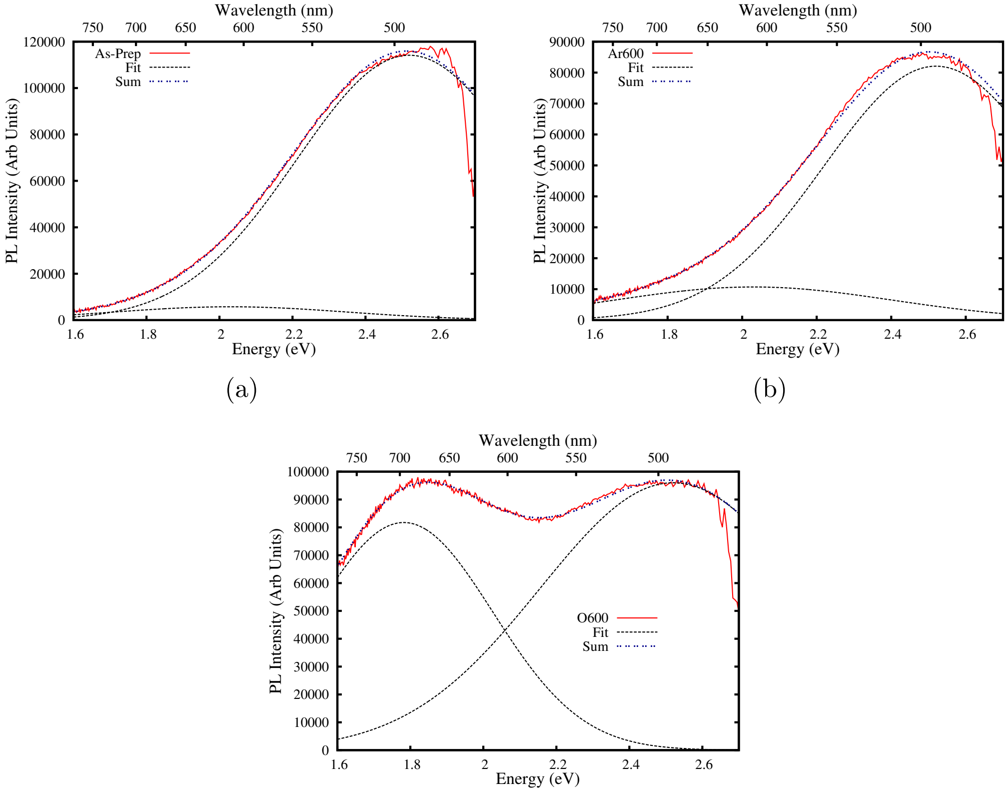
(a) (b) (c) (d) (e)

Figure S3: Visible emission peak fits for the indicated samples.



(a) (b)

Figure S4: PLE measurements for the S4(a): O300, and S4(b): O600 samples. Note that the Ar300 sample is identical with this O300 sample. The intensity at 3.81 eV has been scaled to agree with the intensity as measured by the PL spectrum.

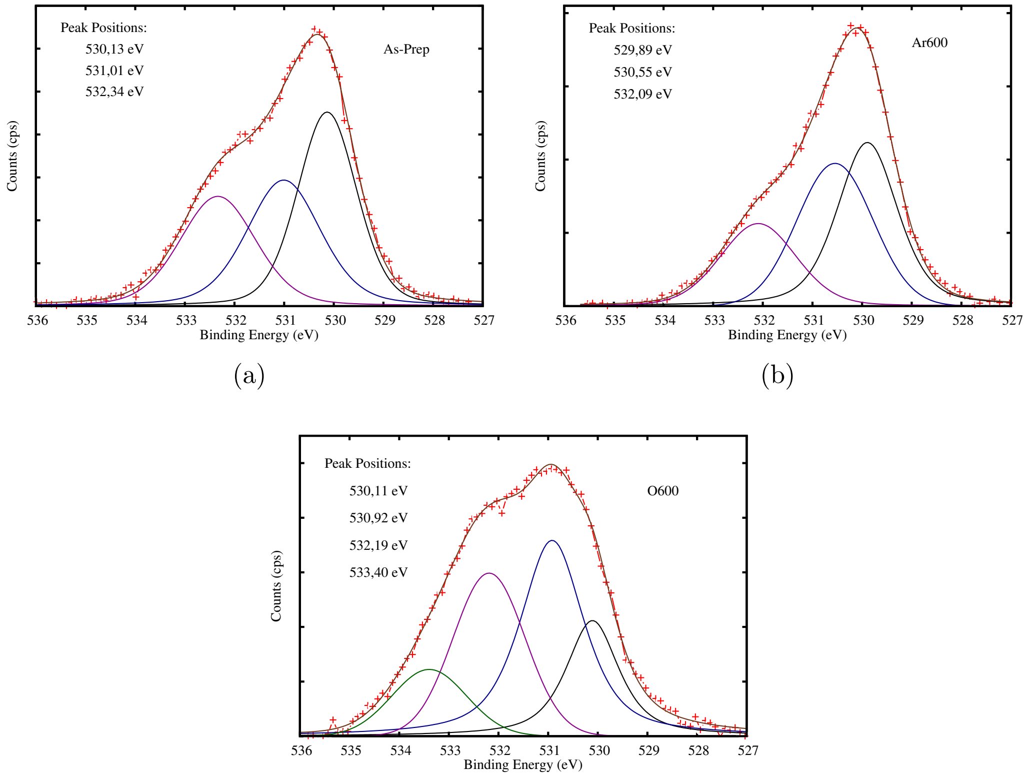


(a)

(b)

(c)

Figure S5: Fits for the indicated PL spectra using an excitation energy of 3.02 eV. The cutoff in the PL signal above 2.6 eV is from the filter and was not considered during the fit.



(a)

(b)

(c)

Figure S6: Fits for the XPS spectra for the S6(a): As-Prep, S6(b): Ar600, and S6(c): O600 samples. The peak positions are indicated in each figure and the sum of the fits is given.