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Influence of gas atmosphere during synthesis of g-C_3N_4 for enhanced photocatalytic H_2 production from water on Au/g-C_3N_4 composites

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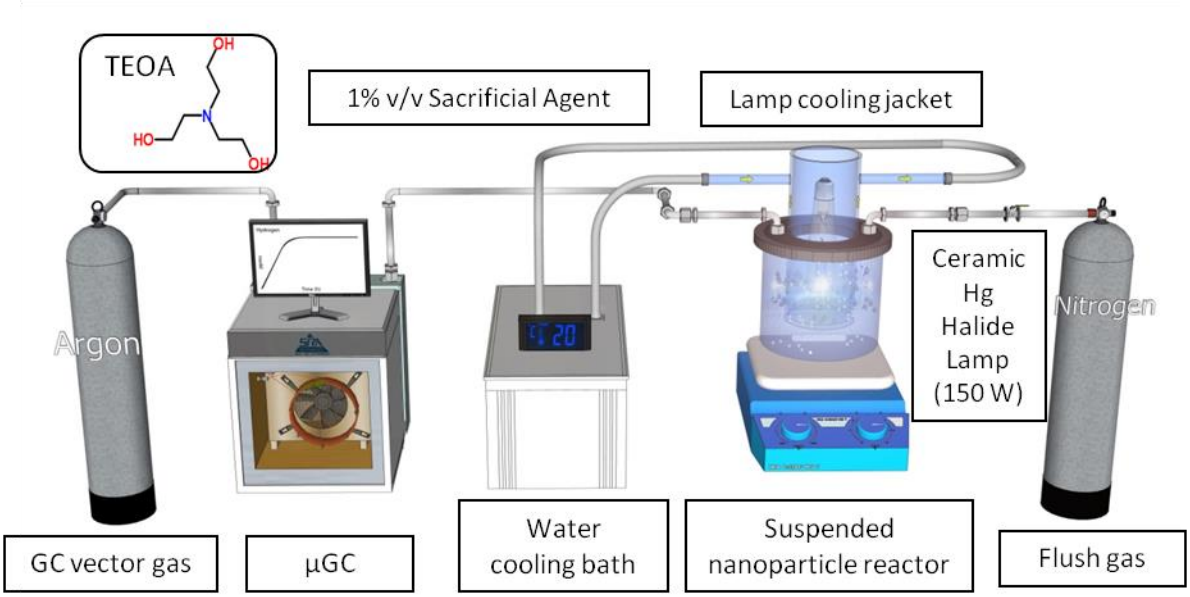

Figure S1. General scheme of the photocatalytic set-up.

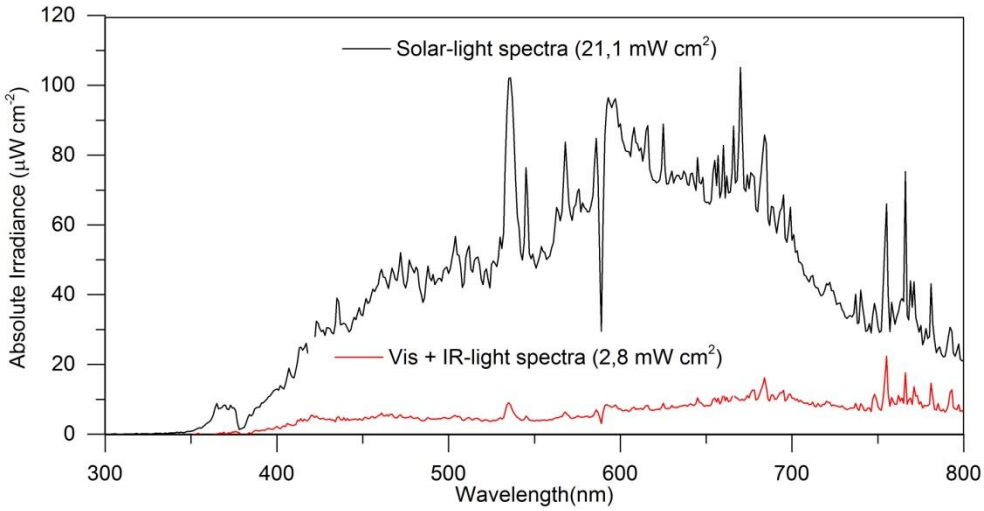

Figure S2. Light emission spectra of the Ceramic metal halide Hg lamp (150 W) used with the two solar and visible illumination configurations. For the visible configuration, a Nigrosing solution of 0.1 g L-1 was added within the plunging quartz tube. The light emission was measured by using an ILT-900-R spectroradiometer from International Light Technologies.

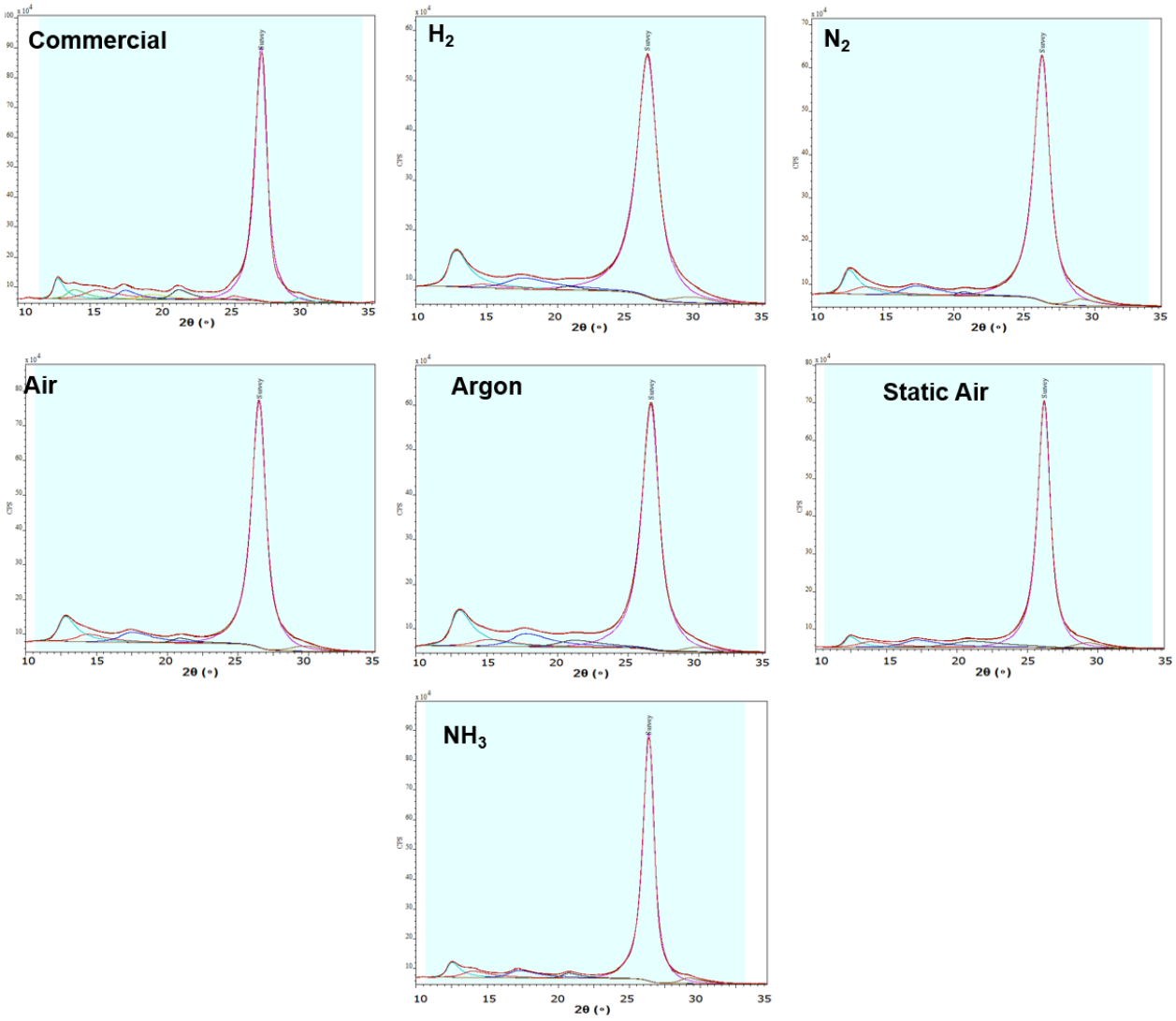

Figure S3 XRD deconvoluted peaks for the calculus of the distance of s-triazine and tri-s-triazine phases, and the interlayer distance.

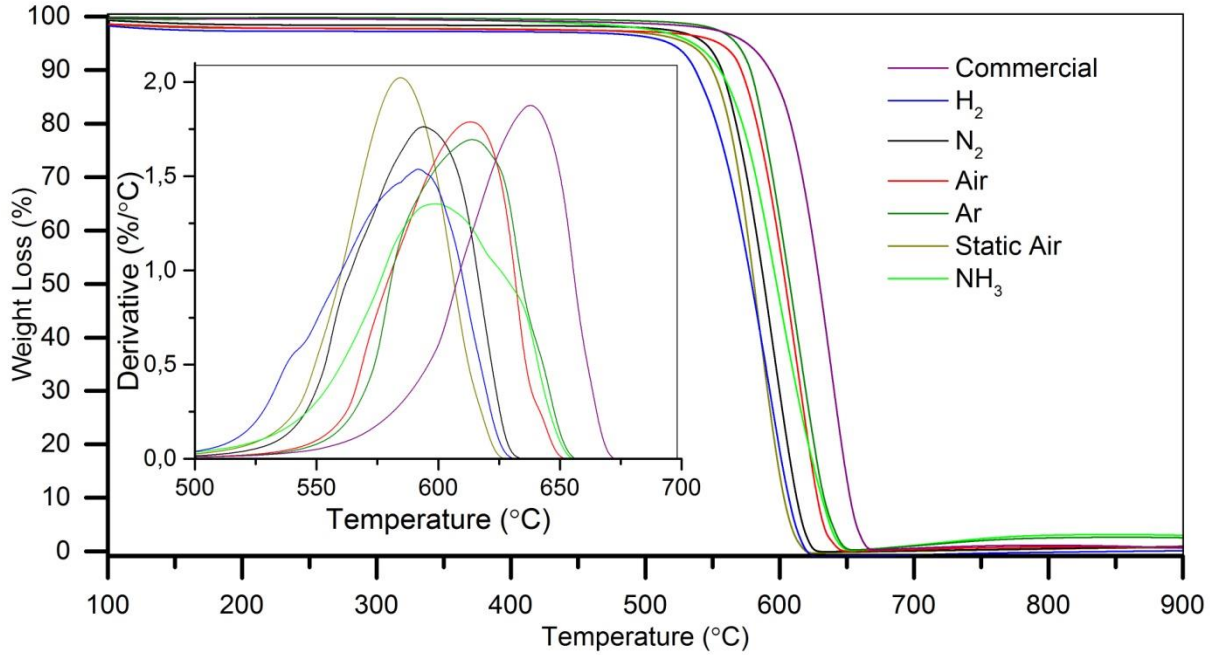

Figure S4. TGA profiles. **Inset)** Derivatives of weight loss from the references and from the g-C_3N_4-atm as-prepared samples.

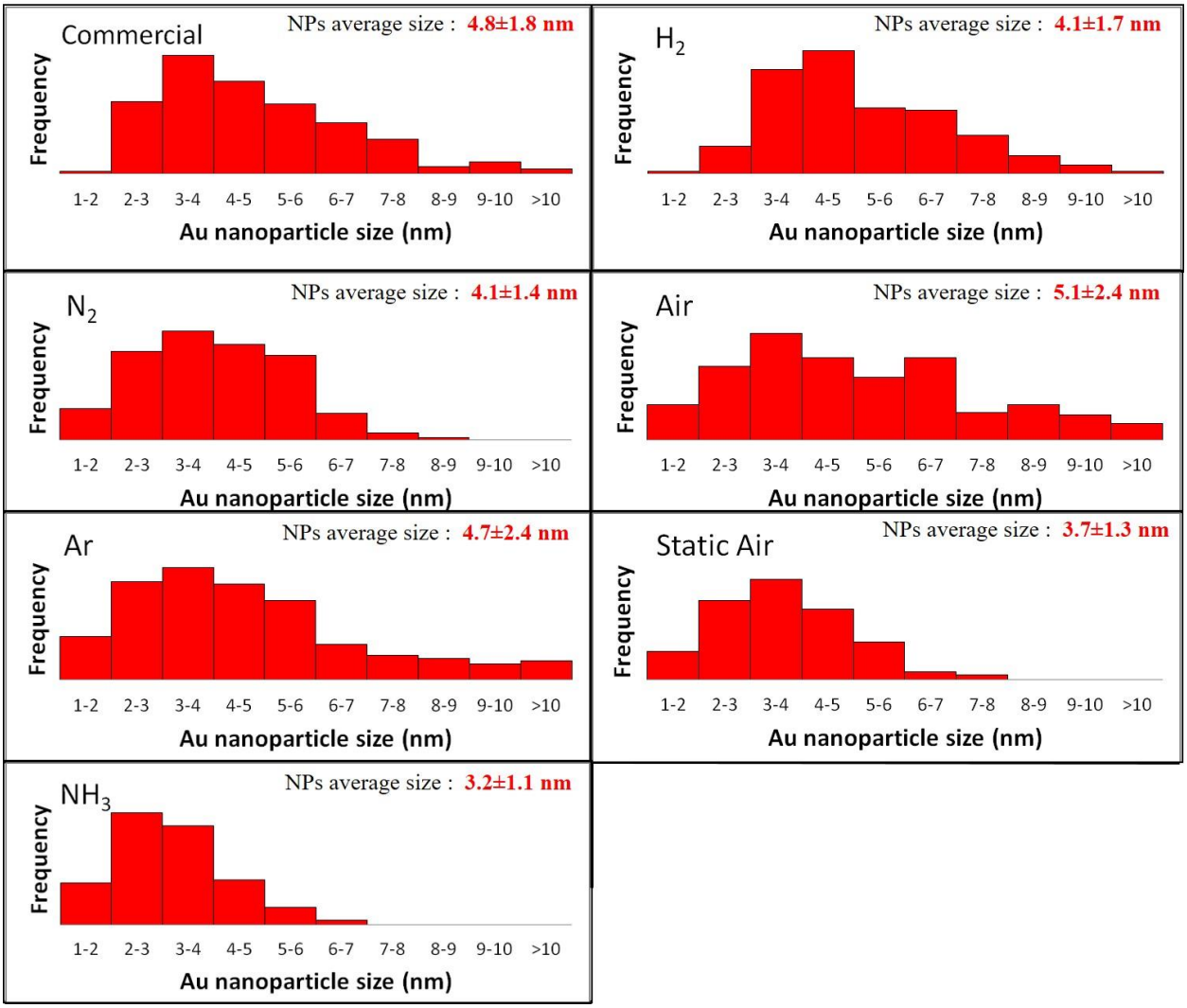

Figure S5. Particle size distribution obtained by TEM after (200 NPs for sample) for references and from the g-C_3N_4-atm as-prepared samples.

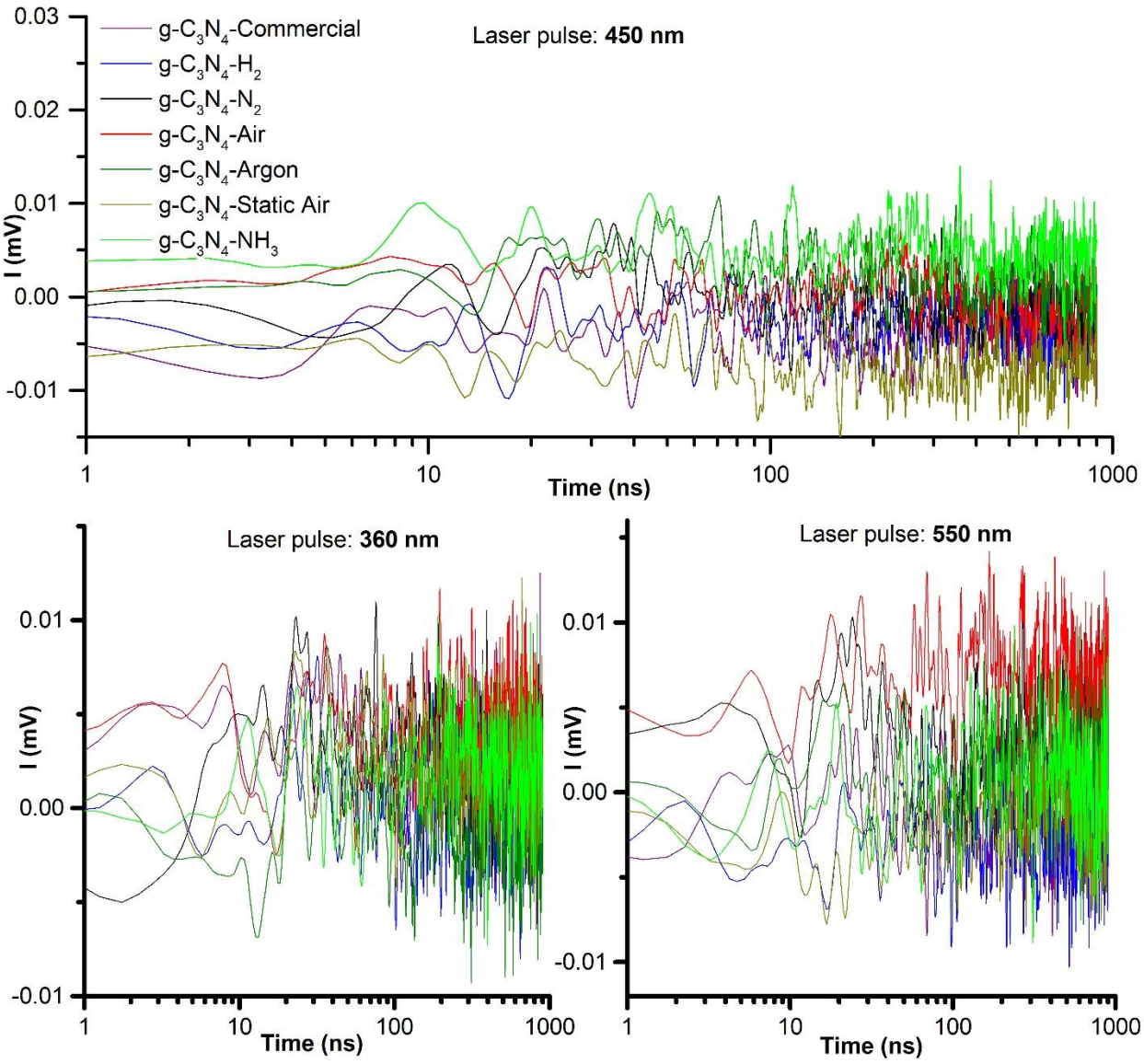

Figure S6. TRMC measurements of the references and of the as-prepared g-C_3N_4-atm samples at 360, 450, and 550 nm.

Table S1. ICP-MS results of the references and of the as-prepared g-C_3N_4-atm samples.

g-C_3N_{4T}	**Dep. Yield (%)**	**Au content (wt. %)**
Commercial	89±5	0.27
H_2	81±4	0.24
N_2	70±4	0.21
Air	82±4	0.25
Argon	69±4	0.21
Static Air	81±4	0.24
NH_3	89±5	0.27