



Supplementary material

Potassium Chloroaurate-Mediated *In Vitro* Synthesis of Gold Nanoparticles Improved Root Growth by Crosstalk with Sucrose and Nutrient-dependent Auxin Homeostasis in *Arabidopsis thaliana*

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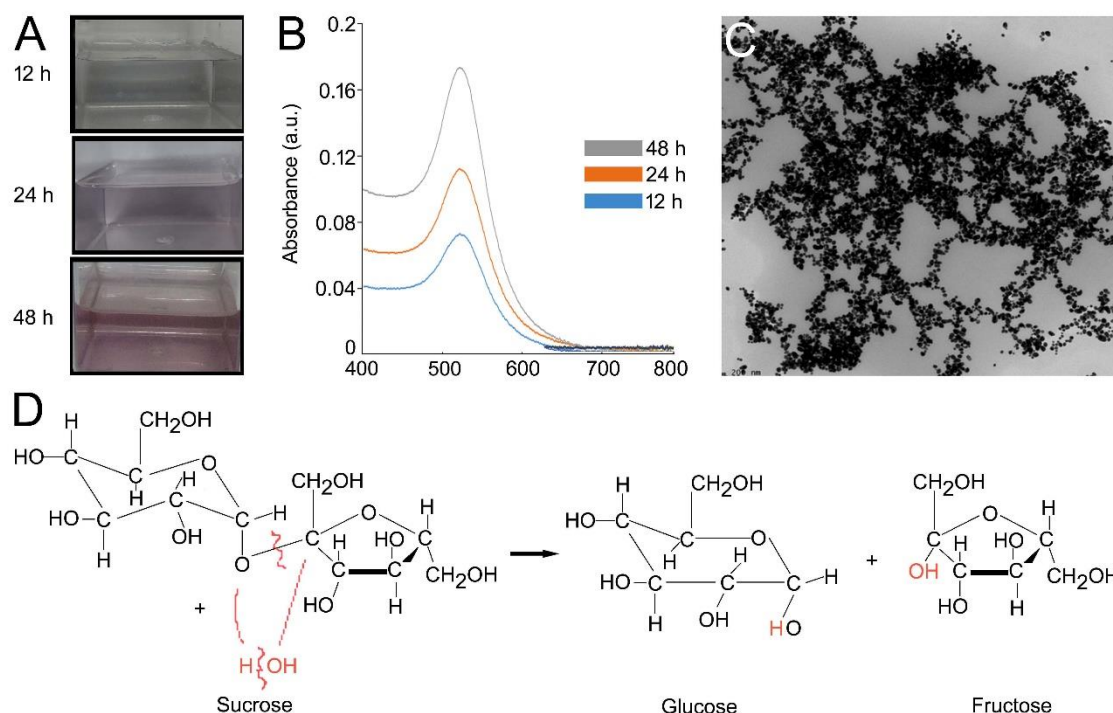


Figure S1. Effects of Suc in NR medium on the solution color, UV-vis spectrum, and TEM images during KAuCl₄-mediated synthesis of AuNPs. NR medium containing Suc was supplemented with KAuCl₄ (100 ppm) and after 12 h, 24 h, and 48 h A) Color and B) UV-vis spectrum was documented. C) TEM images of AuNPs formed in the medium after 48 h. D) Hydrolysis of non-reducing sucrose into reducing glucose and fructose by the process known as ‘inversion of sugar’.

Table S1. List of primers used for qRT-PCR.

Gene	Locus ID	Primers used for qRT-PCR
<i>UBQ5</i>	At3g62250	F: AAGGTTTCAGCGTTTGAGGAAG R: GGATCGATCTACCGCTACAACAG
<i>GH3.3</i>	At2g23170	F: CATCACAGAGTTCCTCACAAGCTC R: GGTGCGCATCAACTTCCTTTCACC
<i>IAA6</i>	At1g52830	F: TTCGGCTGTCTTGGCATAGGAG R: TTCACGATCCTCAGCCTCTTGC
<i>ASA1</i>	At5g05730	F: ATGCATATAAGCTCCACGGTGAC R: GTACGTCCCAGCAAGTCAAACC
<i>ASB1</i>	At1g25220	F: ACGAATCCCACAAGAGTTTCCG R: GATTCCGCCATTTCAATCGAAGC
<i>TAA1</i>	At1g70560	F: CTTTCACTCTTCCCAAGTACC R: TGCTCATTACCTTGTGTCTCC
<i>YUC9</i>	At1g04180	F: AGAGATCAGATTGCATAGCGTC R: CGTTGGGTATTTCAGGGTAGTG
<i>NIT1</i>	At3g44310	F: GCATTGTACGCCAAAGGCATTGAG R: GAATTGGCAAGCCGACAAGACG
<i>AUX1</i>	At2g38120	F: CAGCTGCGCATCTAACCAAGTG R: GATGAGATAAGCAGTCCAGCTTCC
<i>LAX2</i>	At2g21050	F: TCGGTGGACATGCTGTTACTGTAG R: GCACGTAGAGTGTTGCAAACAGG
<i>PILS2</i>	At1g71090	F: CTCTCTGAAGGACCAAATGA R: CACAATCCCTATTCCTCACTAAC
<i>PILS5</i>	At2g17500	F: GAGTCTTGTGGGAGCTTTC R: CAAGTGTAACCGTCTGAGCTA
<i>PILS7</i>	At5g65980	F: CAGTGATTGTGGGAGTGATAAT R: GAGGGTCTGGAGGAAGATAG
<i>ARF6</i>	At1g30330	F: CTCGAAGGCCAATTAGAAGA R: ACGTCGTTCTCTCGGTCAAC
<i>ARF8</i>	At5g37020	F: TTGGGCGTTCATTAGACAT R: GTCATCACCAAGGAGAAGAATA