








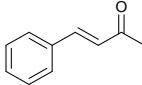
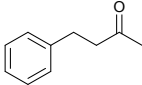
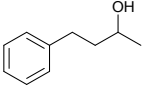
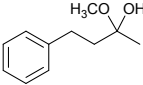













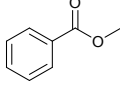
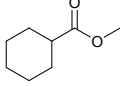






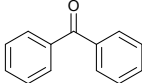
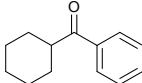
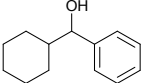
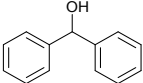
Supporting information for











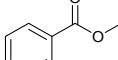
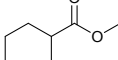
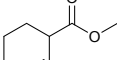
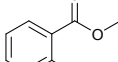
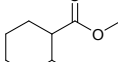
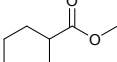
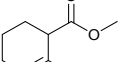
## **A mild route to solid-supported rhodium nanoparticle catalysts and their application to the selective hydrogenation reaction of substituted arenes**

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**Table S1** Selected data for hydrogenation reactions by Rh@D catalysts <sup>a</sup>

| Substrate   | Catalyst                         | T (°C) | P H <sub>2</sub> (bar) | Conversion (%) | Products, yield (%)   |  |  |  |  |
|---|----------------------------------|--------|------------------------|----------------|---|--|--|--|--|
|    | Rh@D100H <sup>+</sup>            | rt     | 1                      | 98.1           |  96.8    |  1.3    |  |  |  |
|    | Rh@D100H <sup>+</sup>            | rt     | 1                      | 91.0           |  58.1    |  31.6   |  1.3    |  |  |
|    | Rh@D100H <sup>+</sup>            | rt     | 1                      | 93.7           |  86.6   |  5.8    |  1.3    |  |  |
|    | Rh@D100H <sup>+</sup>            | rt     | 1                      | 94.9           |  94.9    |  0.0    |  |  |  |
|    | Rh@D400Li <sup>+</sup> <i>in</i> | rt     | 1                      | 99.8           |  10.1    |  89.7   |  |  |  |
|    | Rh@D400Li <sup>+</sup> <i>in</i> | rt     | 1                      | 95.0           |  95.0    |  |  |  |  |
|  | Rh@D400Li <sup>+</sup> <i>in</i> | 60     | 15                     | 100.0          |  71.7  |  11.6 |  3.0  |  13.7 |  |
|  | Rh@D400Li <sup>+</sup> <i>in</i> | 60     | 10                     | 100.0          |  100.0 |  |  |  |  |
|  | Rh@D400Li <sup>+</sup> <i>in</i> | rt     | 10                     | 99.3           |  7.1   |  16.9 |  19.2 |  19.4 |  36.7 |
|  | Rh@D400Li <sup>+</sup> <i>in</i> | rt     | 10                     | 7.5            |  1.3  |  1.2  |  5.0  |  |  |

| Substrate   | Catalyst                         | <i>T</i><br>(°C) | <i>P</i> H <sub>2</sub><br>(bar) | Conversion<br>(%) | Products, yield (%)   |       |   |      |   |      |   |      |   |     |
|---|----------------------------------|------------------|----------------------------------|-------------------|---|-------|---|------|---|------|---|------|---|-----|
|  | Rh@D400Li <sup>+</sup> <i>in</i> | rt               | 10                               | 100.0             |  | 100.0 |   |      |   |      |   |      |   |     |
|  | Rh@D400Li <sup>+</sup> <i>in</i> | 60               | 15                               | 100.0             |  | 100.0 |   |      |   |      |   |      |   |     |
|  | Rh@D400Li <sup>+</sup> <i>in</i> | 40               | 15                               | 100.0             |  | 70.9  |  | 15.8 |  | 6.4  |  | 2.0  |  | 4.9 |
|  | Rh@D400Li <sup>+</sup> <i>in</i> | rt               | 10                               | 31.7              |  | 28.3  |  | 3.4  |   |      |   |      |   |     |
|  | Rh@D400Li <sup>+</sup> <i>in</i> | 60               | 40                               | 76.2              |  | 28.3  |  | 2.0  |  | 31.9 | unknown   | 14.0 |   |     |

<sup>a</sup> Reaction conditions: methanol solutions, catalyst 1.3% (w/w) Rh. Data from GC analysis.