2003 Indole derivatives

Indole derivatives

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Selective Functionalization in Positions 2 and 3 of Indole via an Iodine—Copper Exchange Reaction. — The 2,3-diiodoindole derivative (I) is shown to selectively undergo two successive iodine—copper exchange reactions and to react with two different electrophiles. Products (IV) and (XI) are further transformed to tricyclic compounds. — (YANG, X.; ALTHAMMER, A.; KNOCHEL\*, P.; Org. Lett. 6 (2004) 10, 1665-1667; Fachbereich Chem., Ludwig-Maximilians-Univ., D-81377 Muenchen, Germany; Eng.) — Steudel

$$I = \frac{1. \text{ A}, +25^{\circ}\text{C}}{2. \text{ All-Br (II)}} + 25^{\circ}\text{C}, [0.5 \text{ h}] = \frac{1. \text{ A}, -78^{\circ}\text{C}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{ h}]} + \frac{\text{All}}{2. (\text{II}), -78 - > +25^{\circ}\text{C}, [2 \text{$$