Copper-Catalyzed Direct Sulfoximination

**Significance:** Herein, the direct dehydrogenative sulfoximination of azoles and polyfluoroarenes is reported. This copper acetate catalyzed C–N coupling proceeds effectively at room temperature in air and affords a wide range of N-arylsulfoximines in excellent yield. With this protocol, a preactivation step, such as halogenation or the formation of a metalated species, is not necessary.

**Comment:** The use of other copper salts gave similar or slightly inferior results. The addition of different ligands leads to decreasing yields. For a full conversion the combination of the phosphate base and DMF was necessary. Using an enantiopure sulfoximine gave the desired product maintaining the enantiomeric excess.

![Reaction Scheme](image)

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\begin{align*}
\text{Cu(OAc)}_2 \cdot \text{H}_2\text{O} (10 \text{ mol\%}) & \quad \text{K}_3\text{PO}_4 \ (3 \text{ equiv}) \\
\text{DMF, air} & \quad 25 \degree \text{C}, 8-24 \text{ h}
\end{align*}
\]

**Yields:**
- 89% yield
- 90% yield
- 70% yield
- 92% yield
- 73% yield
- 91% yield, >99% ee

**Keywords:** C–H activation, sulfoximination, copper.