**Direct Difluoroethylation of Heteroaromatics, Michael Acceptors and Thiols**

**Significance:** A novel protocol for direct difluoroethylation of a broad range of heterocycles, Michael acceptors and even thiols with sodium difluoroethylsulfinate (DFES-Na) has been described. DFES-Na is shown to be compatible with various sensitive functional groups, reacts site selectively in high conversion and is easy to handle.

**Comment:** Interestingly, performing the reaction with DFES-Na and tert-butylhydroperoxide (TBHP) solely results in only traces of the desired product. Only after addition of stoichiometric amounts of ZnCl₂ and TsOH·H₂O, the product is obtained in high yield.

**Selected examples:**

- **CO₂Me**
  - 92% yield

- **Cl-NH**
  - 58% yield

- **N₃**
  - 44% yield

- **N₅**
  - 67% yield

- **N-N**
  - 51% yield

- **OH**
  - 83% yield

- **F-F**
  - 66% yield

- **F-F**
  - 83% yield

- **F-F**
  - 56% yield

**R₁ =** various substituted heteroaromatics, Michael acceptors and thiols

**R₂ =** Me, CH₂-4-BrC₆H₄, (CH₂)₆Cl

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**DOI:** 10.1055/s-0033-1338732; **Reg-No.:** P05113SF