Fluorination of Nickel(II)–Aryl Complexes with $^{18}$FFluoride

**Significance:** The authors report a one-step oxidative fluorination of arynickel complexes which enables a straightforward and practical $^{18}$F late-stage fluorination of molecules. Therefore, $^{18}$F-labeled substances of high specific activity for PET imaging can be synthesized.

**Comment:** As the protocol can be performed using aqueous fluoride solutions, extensive drying procedures of fluoride, which are typical for radiochemistry, are not required. Furthermore, direct use of aqueous fluoride solutions increases the yield and prevents radioactive decay.

**Selected examples:**

- Up to 58% ± 6% radiochemical yield (RCY).
- 51% ± 9% RCY
- 53% ± 7% RCY
- 38% ± 7% RCY
- 58% ± 6% RCY
- 43% ± 9% RCY
- 21% ± 5% RCY

SYNFACTS Contributors: Paul Knochel, Andreas K. Steib

SYNFACTS 2013, 9(1), 0090 Published online: 17.12.2012

DOI: 10.1055/s-0032-1317742; Reg-No: P16412SF