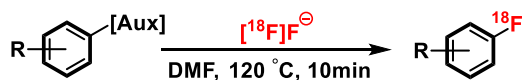


Hypervalent Iodine-based radiolabeling Technology (H.I.T.)

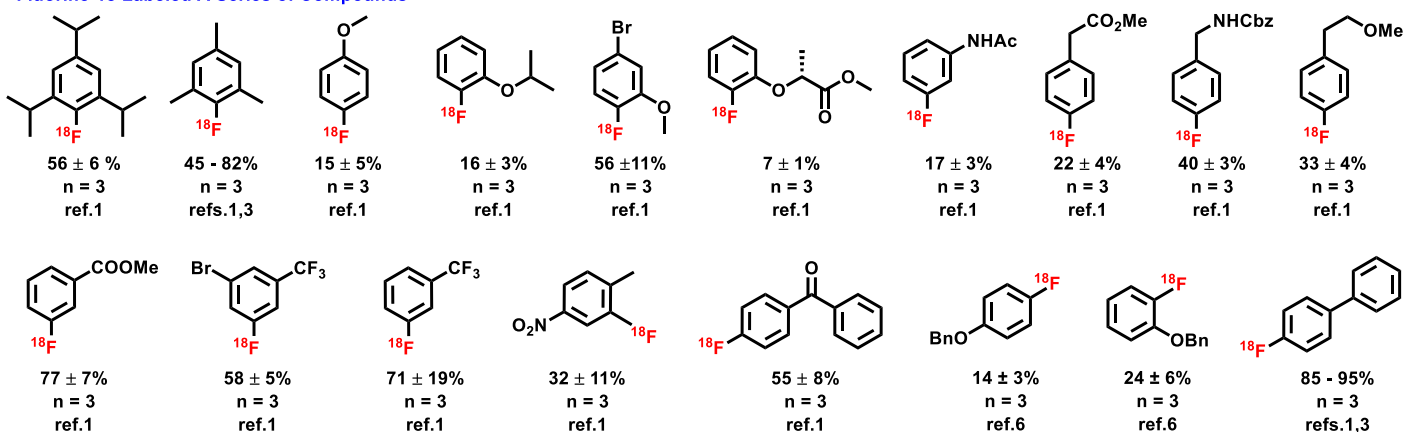
a site-specific, one-step direct labeling method that introduces fluorine-18 into drug/tracer molecules in high efficiency under metal free conditions. The radiopharmaceutical that synthesized via H.I.T. has been validated for human use. (<http://scholar.harvard.edu/stevenliang/hit>)

Molecule gallery labeled via H.I.T.

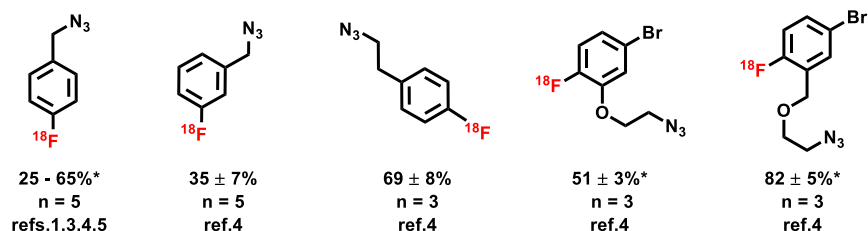


Aux = Hypervalent iodine based auxiliary, serve as a leaving group on non-activated (hetero)arenes

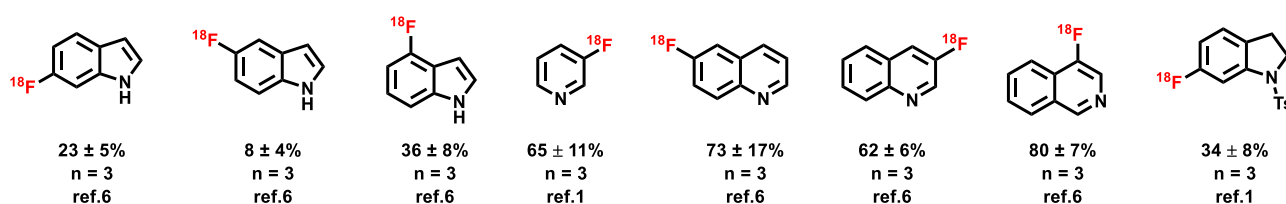
Fluorine-18 Labeled A Series of Compounds



Fluorine-18 Labeled Aromatic Azido Agents



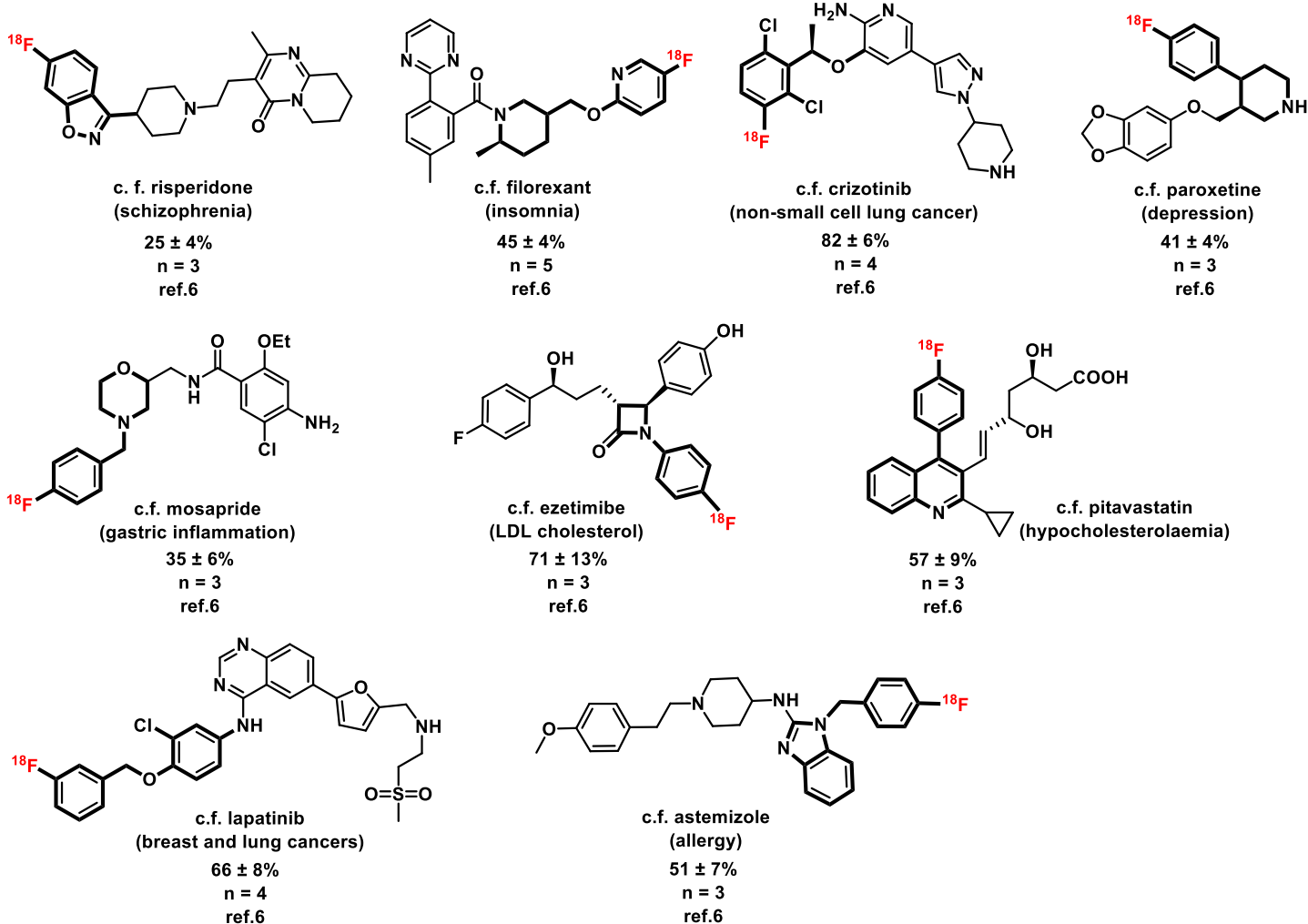
Fluorine-18 Labeled Heteroaromatic/N-containing Structures



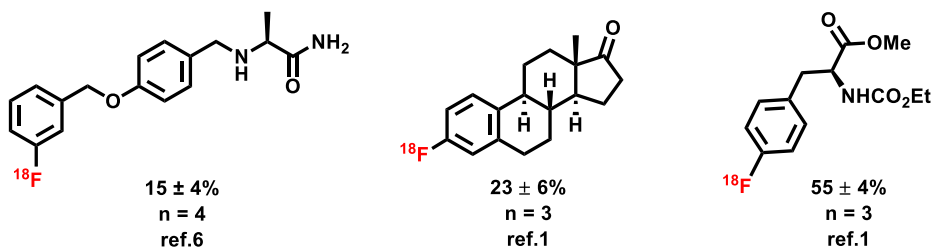
Notes:

1. Unless otherwise stated, the reported yield was radiochemical conversions determined by radioTLC;
2. The product identity was confirmed by radioHPLC;
3. * = isolated radiochemical yield

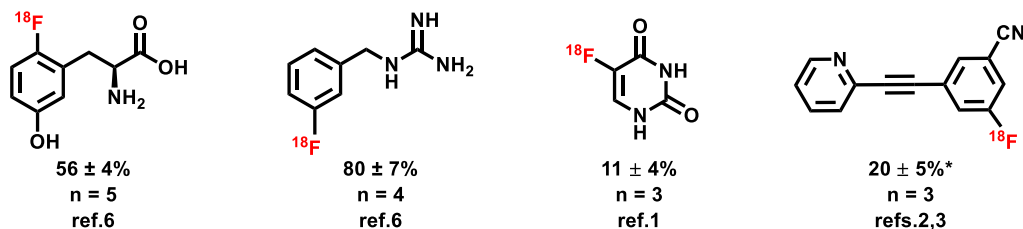
Fluorine-18 Labeled Drug Fragments (bold structure)



Fluorine-18 Labeled Radiotracers



Fluorine-18 Labeled Radiopharmaceuticals

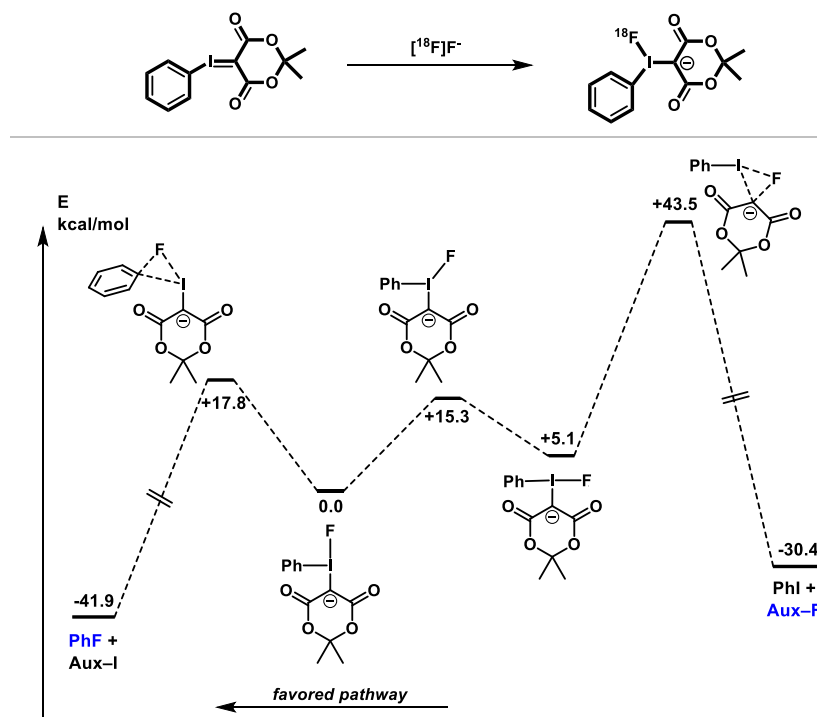


to be continued...

Notes:

1. Unless otherwise stated, the reported yield was radiochemical conversions determined by radioTLC;
2. The product identity was confirmed by radioHPLC;
3. * = isolated radiochemical yield

Mechanistic Studies
Selectivity



References

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