HIGHLY-IODINATED FULLERENE AS A CONTRAST AGENT FOR X-RAY IMAGING

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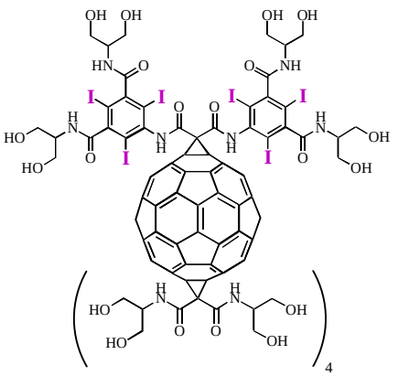
A first-generation, C_{60}-based X-ray contrast agent has been designed, synthesized and characterized (Figure). Based on the versatile fullerene scaffolding, the pentaadduct (Bingel additions) is highly-iodinated (24 % iodine with 6 atoms per molecule) [1], exceedingly water-soluble with 12 1,3-dihydroxy groups [2], and non-ionic. Available X-ray imaging data for animals will be presented.



Figure

References

1. Wharton, T.; Wilson, L. J. "Toward Fullerene-Based X-ray Contrast Agents: Design and Synthesis of Highly-Iodinated Derivatives of C_{60}" *Tet. Lett.* in press.

2. Wharton, T.; Kini, V. U.; Mortis, R. A.; Wilson, L. J. "New non-ionic, highly water-soluble derivatives of C_{60} designed for biological compatibilty" *Tet. Lett.* **2001**, *42*, 5159-5162.