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Basketane Carrying Capacity and a Closer Look at the Atom Economy

Dr. Price Fisher,[a] Intern S. O. Guy[b] and Lahb Slaive[c*]

Abstract: Every research assistant and lab manager has been faced with buying unreasonably priced chemicals. Questions arise. Will my researchers appreciate these purchases? What can one even buy in an atom economy like this? How much can I carry in my basketane, and how much will it cost? Through this research we have concluded nothing.

Specific: A $854.99 Fisher analytic balance was irreversibly modified to operate under vacuum and various small molecules were tested for their ability to be carried by basketanyl dysfunctional groups attached to the weighing plate. All obtained results are smaller than the standard error of measurement, and are thus worthless.

Cryptic: When one can buy lots, one will have to carry lots. When one can carry only little, one must buy little. Use the discrepancy between these factors to calculate the optimal carrying capacity of basketane in ($/mol$_{load}$)/mol$_b$.

Introduction

The atom economy has seen better days. To the chagrin of laboratory managers worldwide, researchers regularly undervalue the reagents they're given. An increased appreciation for the value of reactants would mean more money can be spent on esoteric unrecyclable noble metal catalysts that don't work, benefitting the field as a whole[1].

To foster further appreciation for the value of fine chemicals, we must work on an objective measurement of the atom-economical worth of a molecule. To make such a measurment, we have used the most objectively designed basket: basketane. This polycyclic hydrocarbon would be ideal to carry your hardware store chemicals in, if it were life-size. In this study, we have attempted to measure the value of various elements or molecules one can carry in it.

There are two important factors in the monetary carrying capacity of basketane: (1) the size of the atom or molecule to-be-carried, (2) the value of the carried load. This excludes molecules larger than basketane. This does not exclude exotic states of matter such as muonic lithium, which was considered to be a noble gas in this paper (*vida infra*).

Experimental

Firstly, attempts were made using basketanes functionalised with a trichlorosylyl group at the 1, 2, 3, or 4 position. Four pristinely smooth glass plates of 25 cm^2 were obtained. These glass plates were heated to 500 K and the various basketanes were poured on. The 1- and 2-trichlorosylyl funcionalized basketanes spontaneously caught fire, leaving behind a slightly etched plate. The 3-trichlorosylyl functionalized basketane turned black upon pouring which indicates the formation of tar.[2] The 4-functionalized basketane was expertly chemically attached to the glass, albeit upside-down, as confirmed by Ramen-spectroscopy (figure 1).[3]

To compare different small molecules or atoms, their prices and their ability to be carried, an unpaid intern was sent to retrieve the most unsuspecting cheap small molecules, and helium for comparison. The retrieved compounds were hydrogen gas, neon gas, methane, and lithium. Since we were out of helium and the physics department couldn't help us turn some hydrogen into helium, we begged them to help us make the lithium act like helium by treating it with one muon per atom. We presume this will be inert, like the isoelectronic helium.[4]

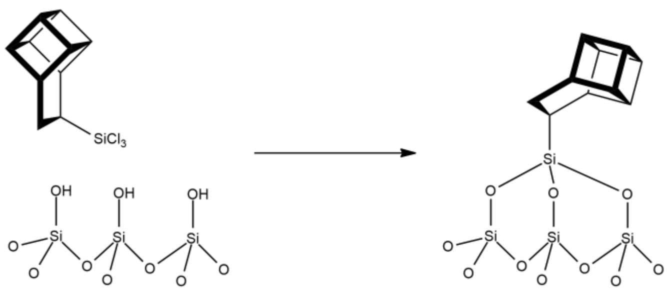

Figure 1 Schematic representation of the basketanyl group, attached upside-down.

Results

As can be seen in Table 1, all of the applied molecules' added weight was within the measurement error of the analytical scale, and thus not significant. However, a valuable observation is to be made of the reaction between the functionalized silica and the monomuonic lithium, which was supposed to be as inert as helium. Instead of being inert, it violently reacted with the entire setup, producing extreme amounts of γ-radiation. The physics department assured us this was "completely expected", that this would "absolutely not happen with regular helium", and that "we should have seen this coming". If this phenomenon can be repeated by using genuine helium it would have tremendous implications for the field of helium chemistry.

Table 1 Results

	H_2	Ne	Methane	Li-μ
Weight increase	2 μg	10 μg	-11 μg	N/A
Weight error	248 μg	115 μg	38 μg	N/A
Value increase	~$3.14 *10^{-17}	~$8.32* 10^{-14}	-~$5.68* 10^{-18}	-$854.99
Value error	$0.04	$1.2	$0.3	$0
Significance	No	No	No	Yes

a. Department of Chemistry, May Dahp College of Mathematics and the Sciences
b. Student at the Department of Chemistry, May Dahp College of Mathematics and the Sciences.
c. Department of Eternal Servitude, May Dahp College of Mathematics and the Sciences.

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goodenough.immaterial.science@gmail.com
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Discussion

It is very possible that the orientation of the basketanyl groups on the silica surface are to blame for the statistical insignificancy of the results, obviously any cargo would just fall out.

The basketane baskets held so much less than expected that there is doubt as to whether there were any filled baskets, let alone baskets with two or more molecules in them. The monetary carrying capacity depends on how much can fit in the basket, not just how expensive the one thing that we squeeze in would be.

Through the duration of these experiments, it has come to the attention of this team that "atom economy" has nothing to do with money, directly, but instead is a measure of efficient use of starting materials.

Conclusions

More research needs to be done to find ways of chemically binding 1- or 2-functionalized basketanyl units to a weighing surface so that experiments can be performed right-side-up, or conversely, modify a scale that can be used upside-down. The research community should be advised against using basketane as a basket. No conclusions about the carrying capacity of basketane as a function of load value could be made in this paper.

About the Authors

Dr. Price Fisher is a covetous and vengeful man in his late 30s. He found that breaking ties with his parents over the terrible name they gave him gave him the resolve to grow past them and destroy his parents' legacy. This is all he talks about.

S.O. Guy is an intern with too many responsibilities and too little pay. After the accident, he's sure he also incurred some radiation poisoning, but has not managed to scrape together the money or time to ameliorate this problem. Please donate to his gofundme here.[5]

No records can be found about Mr. Slaive, and since he's not available for questions it shall be left at that.

Author Contributions

Dr. Price Fisher did nothing, absolutely nothing. I did all the work and I'm not even getting paid for it, but I'm sure he won't read any of this shit. I'm sure Mr. Slaive's hospital fees are going to be paid by the school, using my tuition money.

Conflicts of Interest

Dr. Price Fisher is suspiciously untroubled by the destruction of the analytical balance. This is probably because of his vendetta against his parents. Mr. Slaive is still in the hospital undergoing treatment for radiation poisoning and has thus had no hand in editing this document.

Acknowledgements

We really should have known atom economy didn't mean what we thought it meant.

Notes and references

1 E. Goldman, C. Platinumman, *J. Mus. Chem.* 1999, **14**, 4836.
2 E.F. Tom, *Youtube, The Diels-Alder – making cubane E7,* 8:46. *Link*
3 L. T. T. Bui and D. M. Small, 2009 *Food Chem,* **114** (4). 1477.
4 "Exotic atom - Wikipedia." [Online]
5 tinyurl.com/37f3ubj7