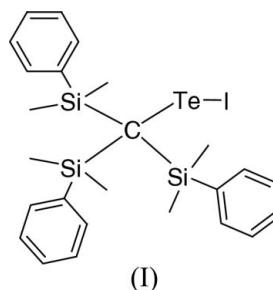


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tmk@cup.uni-muenchen.de**Key indicators**Single-crystal X-ray study  
 $T = 200\text{ K}$   
Mean  $\sigma(\text{C}-\text{C}) = 0.005\text{ \AA}$   
 $R$  factor = 0.031  
 $wR$  factor = 0.073  
Data-to-parameter ratio = 22.5For details of how these key indicators were  
automatically derived from the article, see  
<http://journals.iucr.org/e>.**Tris(dimethylphenylsilyl)methanetellurenyl iodide**

The crystal structure of TpsiTeI [Tpsi = tris(dimethylphenylsilyl)methyl],  $\text{C}_{25}\text{H}_{33}\text{I}\text{Si}_3\text{Te}$ , exhibits discrete molecules without  $\text{Te}\cdots\text{I}$ ,  $\text{Te}\cdots\text{Te}$  or  $\text{I}\cdots\text{I}$  intermolecular contacts. TpsiTeI was prepared by cleavage of its parent ditellane with iodine, and represents a kinetically stabilized alkanetellurenyl iodide with a very bulky substituent. The molecule possesses an angular  $\text{C}-\text{Te}-\text{I}$  arrangement [ $110.53(7)^\circ$ ] with a  $\text{Te}-\text{I}$  single bond [ $2.7178(7)\text{ \AA}$ ].

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Online 10 November 2005**Comment**

During the course of our investigations of organotellurenyl azides (Klapötke, Krumm, Nöth *et al.*, 2005), we were able to determine the crystal structure of the benzenetellurenyl iodide Mes\*TeI (Klapötke, Krumm & Schwab, 2005) and the alkanetellurenyl derivative TpsiTeI, (I) (Fig. 1).



As can be seen, the crystal structures of both compounds feature kinetically stabilized monomers; neither the Te nor the I atoms show intermolecular secondary interactions.

The  $\text{Te}-\text{I}$  bonds in (I) and Mes\*TeI (Klapötke, Krumm & Schwab, 2005) are very similar [ $2.7178(7)$  versus  $2.7181(6)\text{ \AA}$ ]; however, a large difference is found in the  $\text{C}-\text{Te}-\text{I}$  angles [ $110.53(7)$  versus  $95.75(8)^\circ$ ]. This can be attributed to the increased bulkiness of the trisilylmethyl compared to the 2,4,6-tri-*tert*-butylphenyl substituent. In between these two, the steric influence of the terphenyl derivative 2,6-Trip<sub>2</sub>C<sub>6</sub>H<sub>3</sub>TeI [ $\text{Te}-\text{I} = 2.617(1)\text{ \AA}$  and  $\text{C}-\text{Te}-\text{I} = 106.2(2)^\circ$ ] can be estimated (Klapötke, Krumm, Nöth *et al.*, 2005).

**Experimental**

To a green solution of 0.28 mmol bis[tris(phenyldimethylsilyl)methyl] ditellane (TpsiTe)<sub>2</sub> (Klapötke, Krumm, Nöth *et al.*, 2005) in 10 ml of benzene were added 0.23 mmol of neat iodine. After stirring for 1 h at ambient temperature, the dark-blue-green solution was evaporated *in vacuo*. Recrystallization at 277 K from *n*-pentane yielded dark-green blocks of TpsiTeI after several days.

Crystal data

C<sub>25</sub>H<sub>33</sub>ISi<sub>3</sub>Te  
*M<sub>r</sub>* = 672.28  
 Monoclinic, *P*2<sub>1</sub>/*c*  
*a* = 16.076 (3) Å  
*b* = 17.248 (3) Å  
*c* = 9.995 (2) Å  
 β = 101.18 (3)°  
*V* = 2718.9 (9) Å<sup>3</sup>  
*Z* = 4

*D<sub>x</sub>* = 1.642 Mg m<sup>-3</sup>  
 Mo *K*α radiation  
 Cell parameters from 6375 reflections  
 θ = 3.1–27.5°  
 μ = 2.37 mm<sup>-1</sup>  
*T* = 200 (2) K  
 Block, dark green  
 0.08 × 0.05 × 0.04 mm

Data collection

Nonius KappaCCD diffractometer  
 φ and ω scans  
 Absorption correction: none  
 12153 measured reflections  
 6229 independent reflections  
 4995 reflections with *I* > 2σ(*I*)

*R*<sub>int</sub> = 0.023  
 θ<sub>max</sub> = 27.5°  
*h* = -20 → 20  
*k* = -22 → 21  
*l* = -12 → 12

Refinement

Refinement on *F*<sup>2</sup>  
*R* [*F*<sup>2</sup> > 2σ(*F*<sup>2</sup>)] = 0.031  
*wR* (*F*<sup>2</sup>) = 0.073  
*S* = 1.07  
 6229 reflections  
 277 parameters  
 H-atom parameters constrained

$w = 1/[\sigma^2(F_o^2) + (0.0278P)^2 + 1.9905P]$   
 where  $P = (F_o^2 + 2F_c^2)/3$   
 (Δ/σ)<sub>max</sub> = 0.002  
 Δρ<sub>max</sub> = 0.79 e Å<sup>-3</sup>  
 Δρ<sub>min</sub> = -1.35 e Å<sup>-3</sup>

Table 1

Selected geometric parameters (Å, °).

I1–Te1	2.7178 (7)	Si2–C10	1.870 (3)
Te1–C1	2.212 (3)	Si2–C12	1.888 (3)
Si1–C2	1.869 (3)	Si2–C1	1.917 (3)
Si1–C3	1.870 (3)	Si3–C18	1.866 (3)
Si1–C4	1.898 (3)	Si3–C19	1.880 (3)
Si1–C1	1.942 (3)	Si3–C20	1.892 (3)
Si2–C11	1.865 (3)	Si3–C1	1.925 (3)
C1–Te1–I1	110.53 (7)		

H atoms were placed in geometrically idealized positions (C–H = 0.95 Å and 0.98 Å for aromatic CH and methyl groups, respectively) and constrained to ride on their parent atoms, with *U*<sub>iso</sub>(H) = 1.2*U*<sub>eq</sub>(C). The methyl groups were allowed to rotate but not to tip. The highest residual electron density is located 0.96 Å from Te1 and the deepest hole is located 0.75 Å from I1.

Data collection: *COLLECT* (Nonius, 2000); cell refinement: *SCALEPACK* (Otwinowski & Minor, 1997); data reduction: *SCALEPACK* and *DENZO* (Otwinowski & Minor, 1997); program(s) used to solve structure: *SHELXS97* (Sheldrick, 1997); program(s) used to refine structure: *SHELXL97* (Sheldrick, 1997); molecular graphics: *DIAMOND* (Brandenburg, 1996); software used to prepare material for publication: *SHELXL97*.

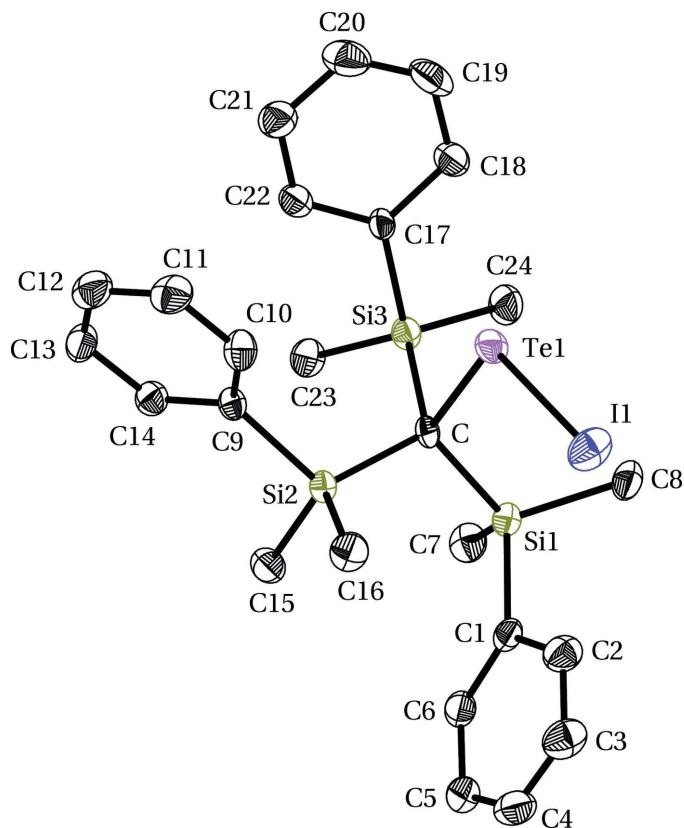


Figure 1  
 Drawing of the molecule of (I) in the crystal structure, with displacement ellipsoids drawn at the 40% probability level. H atoms have been omitted.

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