

SiF₃

SiF_3 (г) Δ Hf

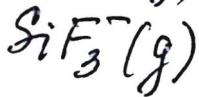
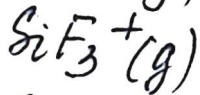
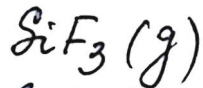
2659-IVTKB

Мельберг В.А.

Энтальпия образования SiF_3 (г), 30.

[omnuck 9581]

1972



Peadley J.B., Iseard B.S.
CATCH tables. Silicon
Compounds Sussex,
Univ. of Sussex, Brighton,

m.g.cb.64

1972

SiF_3

BQP-5044-XIV

1973

Wang J. Ling-Tai.

Margrave J. L. Franklin J. L.

"J. Chem. Phys.", 1973, 58, 112, 5417-5421.

(A) ~~A~~

(cu. CF_3 ; III)

SiF_3^+ 1977
Rosenstock H. M. et al

T. G. J. Phys. Chem. Ref. Data,
CBBA 1977, 6. Suppl. N1, p 1-385

SiF₃(203) osinen 5544. 1977

Farber M. Srivastava
R.D.

(ΔH_f) (Space Sciences, Inc.
Menlo Park, Ca 94016)
Mass spectrometric determi-
nation of the Heats of
Formation of the silicon
fluorides

~ preprint report; as shown

K-press number 11

6422 ~ 25217

SiF₃(r) A.H.

DM 37144

1978

D₀(F₃Si-H)

Doncaster A.M., Walsh R.

J. Chem. Kinetics, 1978, 10, 101-110

Kinetics of the Gas-Phase Reaction
Between Iodine and Trifluorosilane
and the Bond Dissociation Energy
D(F₃Si-H). ●

ommuu 6422 1978

SiF_3 (2)

Farber M. et al.
J. Chem. Soc. Faraday Trans I, 1972,
~~117 2496-2500~~ 24, 2500.

APR 8, 1978, 1089 - 1095

Mass Spectrometric Determination
of the Heats of Formation
of SiF , SiF_2 , SiF_3

SiF₃

Farber M.

1979

Gov. Rep. Announc

(ΔHf)

Index (U.S.), 1979, 79 (20)

98

(em. Bad; III)

SiF_3

Walsh Robin. 1981

Accounts Chem. Res.,
1981, 14, N8, 246-252.

ΔH_f

●
(en. Si_2H_5 ; I)

SiF₃(2) [O_m. 21314] 1982

Mc Miller D.F., Golden D. M.,

$\Delta_f H;$ Ann. Rev. Phys. Chem. 1982,
33 : 493-532.

SiF₃(2)

lom. 17739

1983

Walsh R.,

J. Chem. Soc. Faraday

Trans., 1983, Pt 1, 79, N 9,
2233-2248.

AsH₃

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(Om. 21486)

1984

Schlegel H. B.,

J. Phys. Chem., 1984, 88,
N 25, 6254-6258.

$\Delta_f H_{298,15}$

Wb. max. prices

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монок В. Г.,

Исследование структуры и
энергетики молекул.

ΔfH; Межвузовский сборник научных
трудов Ивановского химико-
технологического института,
Иваново, 1986,

26-27. (есть в картотеке) 26-27

SiF_3

(Om. 29910)

1988

Weber M.E., Armentro-
ut P.B.,

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g.

J. Chem. Phys., 1988,

88, N11, 6898-6910.

Energetics and dynamics

in the reaction of Li^+ with
 LiF_4 . Thermochemistry of
 LiF_x and LiF_x^+ ($x=1, 2, 3$)

SiF_3^+

1989

/ 110: 199454u Reactions of argon(1+), neon(1+), and helium(1+) with tetrafluorosilane from thermal energy to 50 eV c.m. Weber, M. E.; Armentrout, P. B. (Dep. Chem., Univ. California, Berkeley, CA 94720 USA). *J. Chem. Phys.* 1989, 90(4), 2213-24 (Eng). Guided ion-beam techniques are used to measure the cross sections for reaction of SiF_4 with Ar^+ , Ne^+ , and He^+ from thermal to 50 eV. Charge transfer followed by loss of F atoms are the sole processes obsd. All SiF_x^+ ($x = 0-4$) products are obsd., except for SiF_4^+ from reaction with Ne^+ and He^+ , and Si^+ from reaction with Ar^+ . At high energies, the dominant products are SiF_3^+ in the Ar system, and SiF^+ in both the Ne and He systems. There is some evidence in the Ne system for an excited state of SiF_3^+ at 5.7 eV. In the Ar^+ and Ne^+ reactions, the obsd. energetics are consistent with literature thermochem., but with He^+ , reaction barriers are obsd. A value of $\Delta H_{f,298}^\circ(\text{SiF}_3^+) = -30.1 \pm 0.9$ kcal/mol is derived, which is in agreement with previous values but is much more precise. The obsd. product distributions and energetics are explained by consideration of the potential energy surfaces and the difference in ionization potentials of the rare gases. Finally, the relationships of these reactions to plasma deposition and etching are discussed.

(A + H₂ 298)

C.A. 1989, 110, N22

SiF_3^+

1989

23 Б4029. Реакции Ar^+ , Ne^+ и He^+ с SiF_4 от термических энергий до 50 эВ ц. м. Reactions of Ar^+ , Ne^+ , and He^+ with SiF_4 from thermal energy to 50 eV c.m. / Weber M. E., Armentrout P. B. // J. Chem. Phys.—1989.— 90, № 4.— С. 2213—2224.— Англ.

Методом скрещенных пучков исследованы р-ции $\text{Rg}^+ + \text{SiF}_4$, где $\text{Rg} = \text{Ar}, \text{Ne}, \text{He}$. Во всех случаях основным процессом является перезарядка, сопровождающаяся отщеплением атомов фтора. В случае Ar идентифицированы продукты, отвечающие образованию SiF_x^+ ($x=1, 2, 3, 4$) в р-циях с He и Ne . Проанализированы энергетич. соотношения в р-циях данного типа. Приведены оценки потенциальных Пв систем на полужолич. уровне. Дана оценка энтальпии образования SiF_3^+ . А. В. Немухин

ΔH

Х. 1989, № 23

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Ignacio E.W., Schlegel M.B.

ΔH_f J. Chem. Phys. 1990. 92,
N9. C. 5404-5416.

(Cell. ● SiH ; $\bar{I}$)

LiF

1993

Deutsch H., Cornelissen C.,
et al.,

поперечные
срезы

популяции,
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Int. g. Mass Spectrom.

Ion Processes 1993,
129, 143-8.

(cell. CH, I)

SiF_3

SiF_3^+

мерео-
хел.

1993

Fisher E.R., Kicket B.L.
et al.

J. Phys. Chem. 1993,
97 (39), 10204-10.

● (cer. SiF_x ; $\bar{i}$)

SiF_3^+

[Om. 37370]

1993

Kickel B.L., Fisher E.R.,
et al.,

m.x.

J. Phys. Chem., 1993, 97,
10198 - 10203

Dissociative Charge-Transfer
Reactions of $\text{N}^+(^3\text{P})$, $\text{N}_2^+(^2\text{g}^+)$,