

15 – 78 % [2],
7,7⁰ [3].

120-

[3].

() (. 1.),

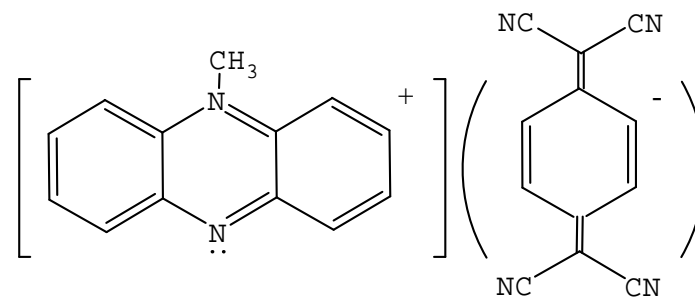
↑
 Электрохимический перенос электрона
 Фотохимический перенос электрона
 Катализ { Энантиоселективный
 Стереоселективный
 Региоселективный
 Сольватация
 Обратимые структурные изменения
 Необратимые структурные изменения (введение подходящего заместителя и т.п.)

[4, 5]

() N-
 ([NMP](TCNQ)) (. 2)

7,7',8,8'-

[6],



. 2.

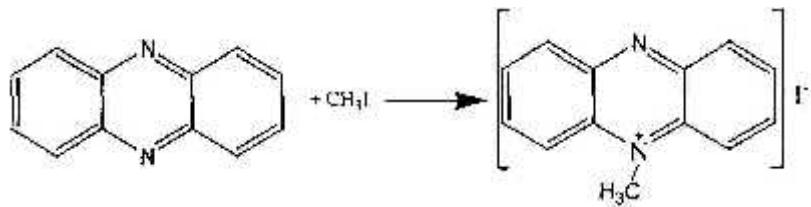
[NMP](TCNQ)

[NMP](TCNQ),

10%

KI 1-2 CH₃NO₂.

(4-8



TCNQ



CH₃CN.

[NMP](TCNQ)

4,9,16,23-

(II) (TAPcCu).

[7].

±90° c

1

(~20°)

50 / 3,
2 < < 6,3

50 / 3

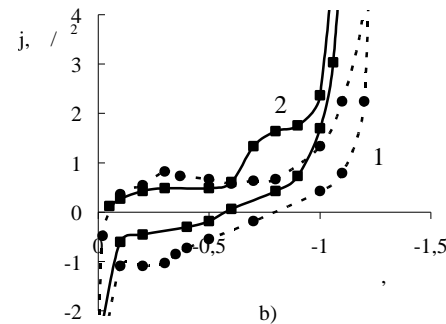
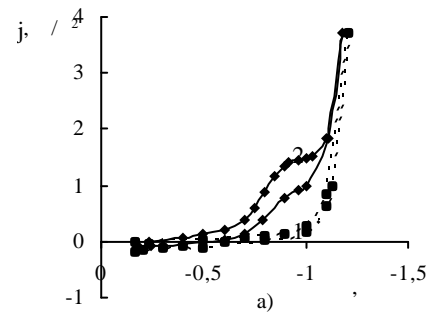
2
3²⁻ 2
5,
, > = 6,3
3,
[8 - 11].
=

[NMP](TCNQ),

(.3, , 1)
-1,1 (

(.3,).

Ag/AgCl/KCl),



.3.

[NMP](TCNQ)

() (b)

(10 / , 50 / Na₂SO₄,
pH=5 Ar (1) CO₂ (2)).

(.3, b)

(.1),

	[NMP](TCNQ)	[NMP](TCNQ)+ TAPcCu	[NMP](TCNQ)+ TAPcCu
() ² ,	- 0,8	- 0,8	- 0,7
, %	85	90	98
()	6	3	2
,	>500	500	450

4,9,16,23-

(II) (TAPcCu)

(.1),

[NMP](TCNQ).

[13, 14],

: 1.

2003, . 118 – 121. **2.** Scheffer, M., Brovkin V., Cox P.M. // Geophys. Res. Lett., 2006, vol. 33. **3.** Osborn T.J., Briffa K.R. // Science, 2006, vol. 311, p. 841-844. **4.** 2002, . 71, 3, . 255 - 272. **5.** Chanon M. // Bull. Soc. Chim. Fr., 1985. p.209. **6.** 2002, . 71, 10, . 950

- 966. **7.** 1977. **8.** Christensen P.A., Hammett A., Mui A.V.G. // J.Electroanal.Chem., 1988, vol. 241, p. 361. **9.** 1995, 31, 5, . 453 – 470. **10.** 1978, .14, 10, . 1520. **11.** 1977, .13, 12, . 1818. **12.** Mahmood M.N., Masheded D., Harty C.J. // J. Appl. Electrochem., 1987, vol. 17, p. 1159-1170. **13.** N.Furuya, S.Koide // Electrochimica Acta, 1991, Vol.36, P. 1309. **14.** US Patent 5804045 Int.Cl. C25B 11/00.

19.09.06

546.33

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In the article has been viewed the development moving forces and trends of different kind of wastes utilization problems, their classification and structure. The main attention devoted to metallic sodium wastes potential application direction in Ukraine industry.

2003 – 2007

[1 – 3, 6, 9].