INTRODUCTION

R [illegible] (2001; [illegible] 2006). [illegible] (2001; [illegible] 2006). [illegible] (2002). [illegible] 1974). [illegible] (500 650 [illegible] -1 [illegible] 75:25. [illegible] 2- [illegible] 1999). [illegible] 1995) [illegible] 1979). [illegible] 1999), [illegible] 1997). [illegible] (2000), [illegible] (2005, 2004), [illegible] (2005), [illegible]

π-π^*

10^3 10^6

10^{-4} 10^{-6}

π

( )

(=)

β-

2.

π-π^* (

0- 2)

~0.2 -1
5 -
-1
(, 1985; ., 1997).
(99%

-1 5
350 600.

488.0 514.5
50× 2 μ

488.0 514.5.
5 + (-
2017,)
:10 , 5
~1.2
800 1800 $^{-1}$

RESULTS AND DISCUSSION

.3
-1.
(λ) 388, 468,
495, 530.
(1985) . (1997).

FIG. 3. T a a - a *Hb . alinar m* NRC-1 . / λ 468, 495, 530.

10^5 (~150) / (3).
(. 3).
π 1 1 1 1 (. 3). 1 1

β- 488.0 514.5
(., 2006). -
514.5 -

-1, -
1000, 1152, 1505 $^{-1}$
(. 5). ;9 1000, 1152, 1505

$^{-1}$ ν_1 (=). 50
13
(.
2).

(2003).

(1600 1500 $^{-1}$), (1400 1250 $^{-1}$), (1250 1100 $^{-1}$), (1000 700

($^{-1}$) ν_1 = 1505 $^{-1}$ = 13 = /

ACKNOWLEDGMENTS

ABBREVIATIONS

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. (1985) . 111, . 113 149.

. (2004) . 63 115.

. (1982) . 262.

. (1999) . 74, 311 345.

. (1995) . 225 230.

. (1997) (20%) . 168, 68 71.

(2004) . 35, 470 474.

. (2005) 174, 560 571.

. (2003) ( ) : ? 3, 565 579.

. (1989) 1, 2 3,). . 25, 601 604.

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. (1974) . 20, 241 243.

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. (1979) . 2, , 1 73.

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(2006) . 41, 182 189.

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. (1996) 35, 7802 7811.

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. (2005) 77, 212 221.

[illegible] (1991) [illegible] 2 [illegible] β- [illegible] 178, 89 96.
[illegible] (1987) [illegible] A [illegible] 1, [illegible]
[illegible] (1990) [illegible] A [illegible] 112, 9378 9386.
[illegible] (1977) [illegible] β- [illegible]