INTRODUCTION

R … 2001; … 2006). … 2001; … 2006). … 2002). … 1974). … (500 650 …) … -1 … 75:25. … 2- … 1999). … 1995) … 1979).

… 1999), … 1997). … (2000), … (2005, 2004), … (2005), …

π-π^*

10^3 10^6

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

π

( )

(=)

β-

2.

π-π^* (

)

~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.

[illegible] 10^5 [illegible]

[illegible] (~150 [illegible]) [illegible] / [illegible] ([illegible], [illegible] 3). [illegible] ([illegible] 3). [illegible] π [illegible] 1 [1] [illegible] 1 [1] [illegible] ([illegible], [illegible] 3). [illegible] 1 [1] [illegible] 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).

50

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

[2], [1], 1 0

(., 1991). 488.0 514.5.

(ν^4). 514.5 780

(2003),

($^{-1}$) ν_1 = 1505 $^{-1}$ = 13 =

ACKNOWLEDGMENTS

ABBREVIATIONS

REFERENCES

(1990) 23, 181 193.
(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.
(1999) 28, 367 399.
(1974) 20, 241 243.
(2001) 1, 161 164.
(1979) 2, 1 73.
(2006) 97 98.
(2006) 41, 182 189.
(2002) 39, 1 7.
(1996) 35, 7802 7811.
(1995) 53, 50 23, 23, 627 634.
(2005) 77, 212 221.

[illegible] (1991) [illegible] 2 [illegible] β- [illegible] 178, 89 96.

[illegible] (1987) [illegible] 1, [illegible]

[illegible] (1990) [illegible] 112, 9378 9386.

[illegible] (1977) [illegible] β- [illegible] 67, 5930 5933.

[illegible] (1995) [illegible] 26, 683 692.

[illegible] (2006) [illegible] 384, 100 113.

[illegible] (2005) [illegible] 130, 917 923.

[illegible] (2006) [illegible] 6, 1 8.

[illegible] (1995) [illegible] 44, 132 141.

[illegible] (2003) [illegible] 59, 2207 2212.

[illegible] (2000) [illegible] 144, 486 503.

[illegible]