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2. -, 3. LabVIEW 4. , 5. , , (), 4-, : Gd 1. $Li_2O-B_2O_3-P_2O_5-CaF_{2,}$ Gd^{3+} $^{3+}$:

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380 LBPC:Gd 350 LBPC:Gd, Ce LBPC:Gd, Pr (. 3) -10-15 , , ~35-40 LBPC:Gd 200 , 10% (.3 1) 560-620 , : LBPC:Gd (. 3 , 1) ~100 LBPC:Gd, Ce LBPC:Gd, Pr (.3, 23) 94

(.3,): -



. 6).

₂~2

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~20 .



1- LBPC: Tb; **2**- LBPC: Tb³⁺, Ce³⁺;



:

(. 6).

1~520 (. 6 a) 5

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ZnWO₄

(. 8, 1).





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: $\tau_1=0,08$ (3%), $\tau_1=0,07$ (6%), $\tau_1=0,1$ (9%). τ_2





(. 12).

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$$Li_2O-B_2O_3-P_2O_5-CaF_2$$

. 2.

 $Li_2O-B_2O_3-$

 P_2O_5 -Ca F_2 :Gd

3.

,

 $\begin{array}{c} \max = 312 \\ \text{Gd}^{3+} \\ \text{,} \\ \text{,} \\ 280 \ (^{5}\text{D}) = \frac{7}{15} \\ \text{,} \\ \\ \text{,} \\ \\ \text{,} \\ \text$

 $380 \ ({}^5D_3 \ {}^7F_6) \ 545 \ ({}^5D_4 \ {}^7F_5) \ .$

4.

5. ZnWO

 $ZnWO_4$

: ZnWO₄ ,

ZnWO₄

7. , dWO₄, dWO₄:Li, dWO₄:Li, Bi

8.

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