Electrically Driven Multiaxis Rotational Dynamics of Colloidal Platelets in Nematic Liquid Crystals

C[illegible][1,2] [illegible][1] T[illegible][2] [illegible][1,3,*]

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([illegible] ,49, [illegible])

[illegible] A [illegible] B [illegible]

ð þ, 0 ð 0þ ¼ 0/2,

. F r r ﬁ4

F . 2( ) .T

10% . F r r

C,

A F . 2( ),

: ¼

ð / 2/ 2 þ½ð / þ2 1, r ¼ 0.146

r ¼ 12.1

Fr Z -3412, ¼ 11

. A

nðrþ

Ab ¼ 5 , r b

r r

r b (r r

r rr r), r b

/ /2,

r r

r r r .

A b ¼ 5 , r

b y r r ¼ /2,

b r b z r , F . 3( )

/4 r b b r r v r

.T

F . 3( ), r r

(6.4) (4.5). A > ,

r- b r r -b

ð / þ½ /ðε0 εþ1/2

ð / þ 8 .T r

, F . 4 b FC

P ? x, r b r C r

r r

r r r nðrþ r r

. F r r , r - FC

F . 4(b) 4( ) r r

P k x, r r

ðrþ nðrþ ¼ ðrþx þ

n ðrþz.T -b r r b br

b T b

nðrþ r nðrþ b r E, r

r b r r r

r b

ﬁ4 - r 8-627.3( )T 0-1.154

F[illegible]. 3( ) [illegible] -

[illegible] ([illegible] r- r [illegible]

). [illegible] 5CB

[illegible] 0.T [illegible]

5CB' [illegible] ( ) [illegible]

[illegible] (ε 11).

[illegible] x-y [illegible] ¼ /2

[illegible] 0 F[illegible]. 3( ) . A [illegible]

¼ 6, 8, 10 [illegible] F[illegible]. 3(b). A [illegible],

[illegible] ¼ [illegible] / [illegible]

[illegible] 0 [illegible] 0.2 d.T

[illegible] F[illegible]. 3( ) . A [illegible]

[illegible] 41(,)T -15.676-1.1598 D([illegible])9(-6([illegible])20.33140 D(/F51 29420 D(/F71

([illegible])-941( )2934.7( )3954.7

( )-32521(

([illegible]

[illegible])