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The Zarin Shear Zone and It's Tectonic Importance in Central Iranian Micro-Continent

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Abstract

Zarin ductile shear zone in north Ardakan with N-S orientation and arc geometry concaving to the west contains parts of Zarin granite and Paleozoic metamorphic rocks that were deformed to mylonites and ultramylonites. This shear zone is the same as the greater dextral strike-slip ductile shear zone to the east (Kashmar-Kerman shear zone), that is the tectonic boundary of Yazd block to the west and Tabas block to the east in the central micro-plate of Iran. The major boundary faults of the tectonic blocks in the central micro-plate of Iran change their N-S trend (Nayband fault) to arc shape to the west (Kashmar-Kerman shear zone) and the arc form is continued to the west in Zarin shear zone. All these fault systems are strike-slip with dextral sense of shear. Fabric evidences in Zarin shear zone indicate that possibly it was originally in N-S direction and gradually was changed to arc form.

Keywords: Shear Zone, Tectonic Importance, central Iranian Micro Continent

and .

(1991) Hanmer Passchier

Baily .

(2001)

(2004) Bhattacharya .

Bouchez :

(2006) et al. Dobmeier

(1983)

(Ramazani & Tucker, 2004)

Paterson et al.,)

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Ferre et al., Tobisch and Paterson, 1990

Vernon et al., Moyen et al., 2002 ,1995

Nzenti et al., Mamtani et al., 2005,2004

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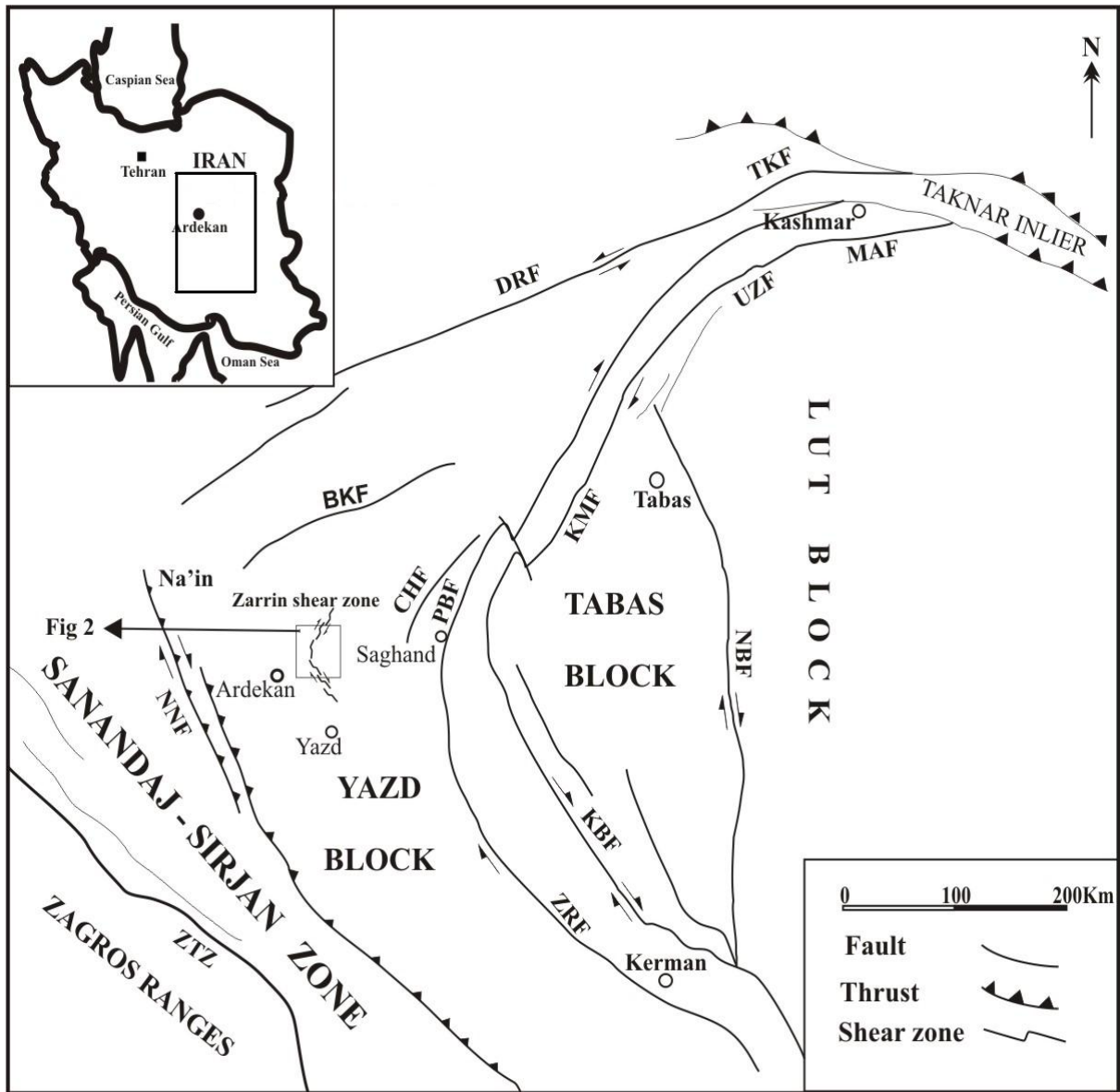
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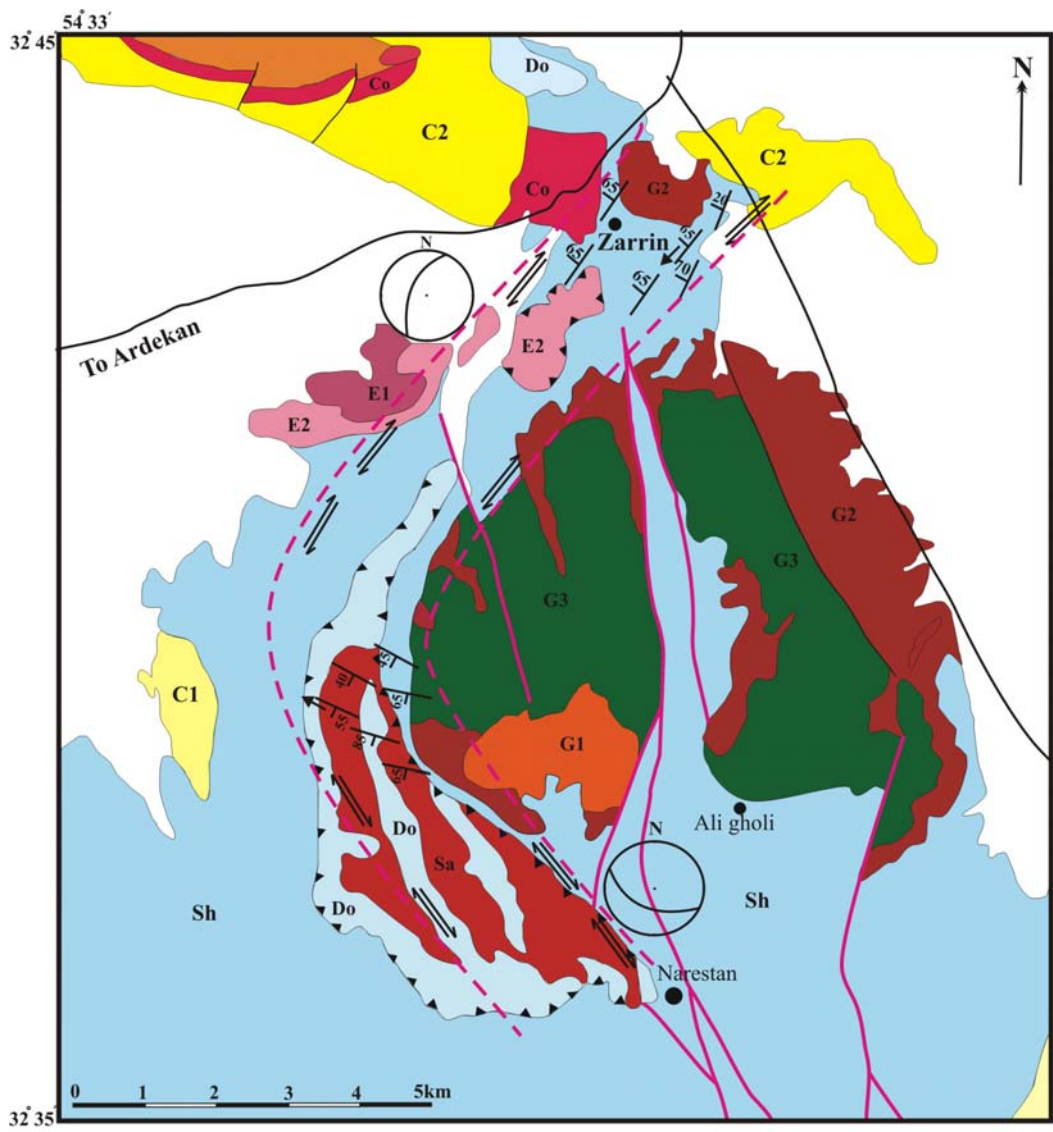
(NNF)

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C1	تپه های ماسه ای عهد حاضر	G1	بیوتیت گرانیت	فولیاسیون 70
C2	کنگلومرا و ماسه سنگ پلیوسن	G2	لوکوگرانیت	خطوارگی کششی
Co	کنگلومرا و ماسه سنگ قرمز انوسن	G3	گرانیت	پهنه برشی + مولفه برش
Sh	ماسه سنگ و شیل با میان لایه های آهک (سازند شمشک)، ژوراسیک			گسل
Do	دولومیت متوسط لایه تریاس			گسل معکوس یا تراستی
Sa	ماسه سنگ کوارتزیتی دونین			موقعیت هندسی برگوارگی میولونیتی
E2	دولومیت زرد با میان لایه های مارن و ژپس، کامبرین پیشین			راه شوسه
E1	ماسه سنگ با میان لایه های توف، پرکامبرین			روستا

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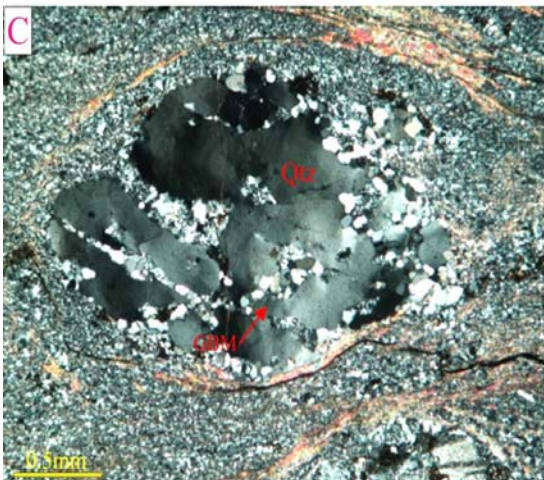
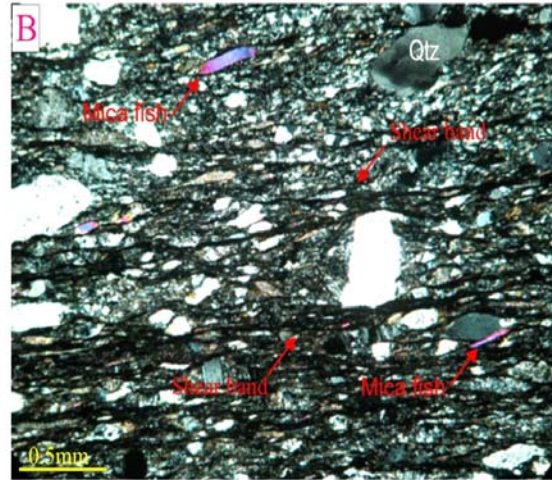
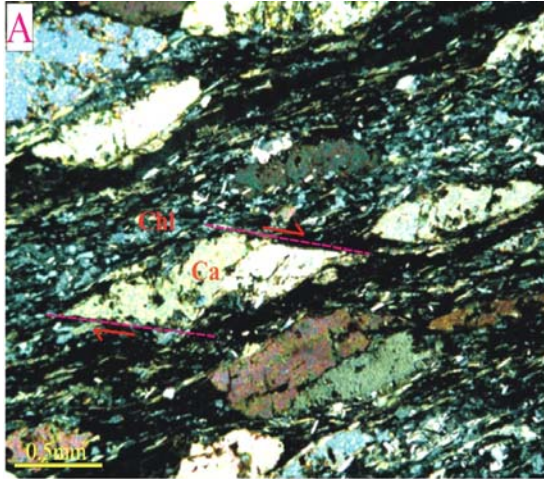
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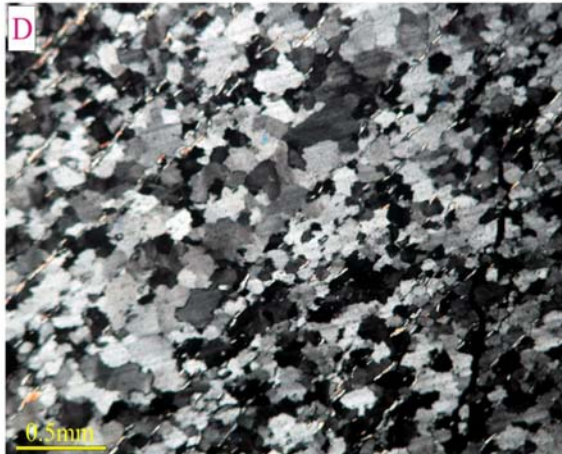
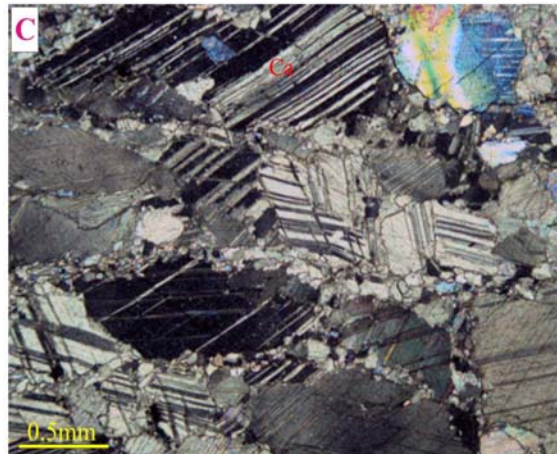
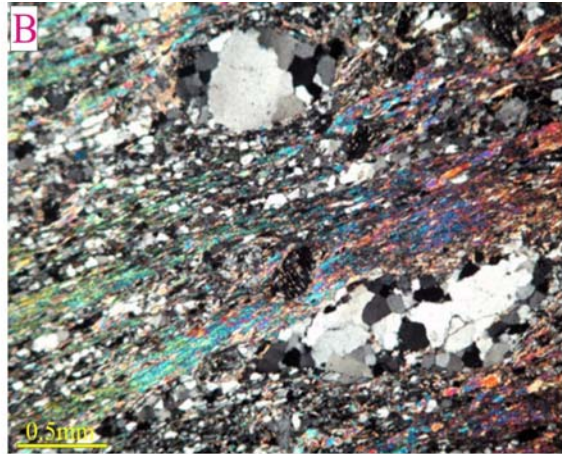
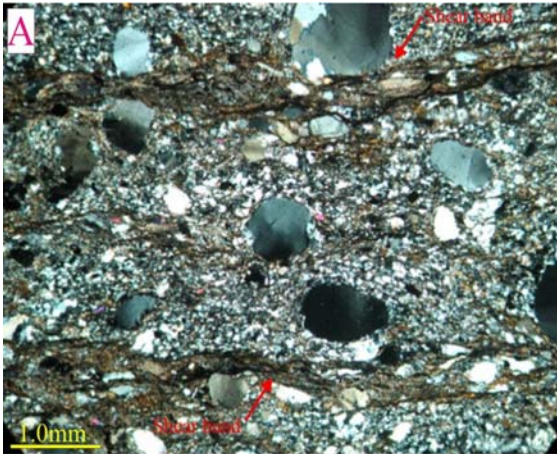
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 .(PPL :B
)
 Sub grain, New grain :C
 .(PPL :D
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 .(PPL)



AI

:A

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:B

(PPL

)

:C

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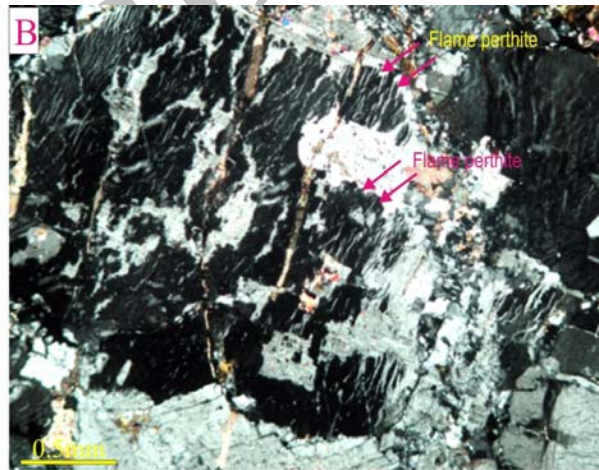
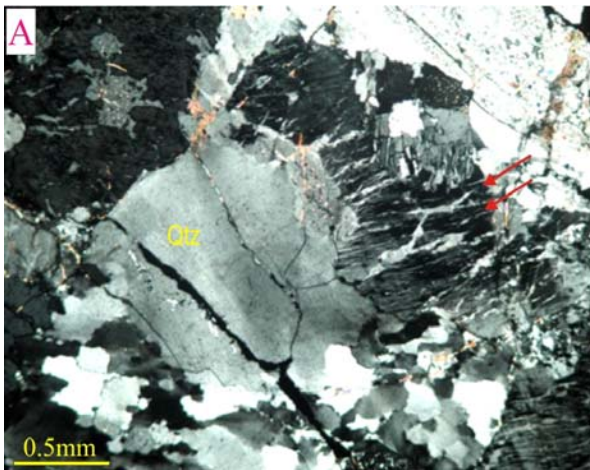
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:D

(PPL

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(PPL)

:A

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:B

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C' (C/S)

C/S

C'

(B)

sub grain

new grain

(GBM)

Vernon et al., Passchier & Troaw, 2005)

(Galadi-Enriquez et al., 2006 ,2004

(C)

new grain sub grain

(GBM)

(C)

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Passchier & Troaw,) .

Mamtani, 2005 ,Arancibia, 2004 ,2005

(A) (Galadi-Enriquez et al., 2006

C C/S

D) (Passchier et al., 1996)

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Arancibia., ,Passchier & Trow, 2005)

(2004

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stair stepping
synthetic antithetic

poly- (mono-mineral)
(B) (mineral)

Passchier &) (GBM)

(Troaw, 2005

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new grain sub grain

Passchier,) (exsolution)

(Smithson, 1963) (1982

(Debat et ()

(Lattice Preferred Orientation)

"al., 1978)

C (D)

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Trullenque et ,Passchier & Troaw, 2005)

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(foliation)

(stretching lineation)

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(Ramazani & Tucker, 2004)

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