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					g/cm ³	g/cm ³	(%)	
		(%)	(%)	(%)				
Typic Hapludalfs Fine Mixed Superactive Thermic								
A					/	/		3f&msbk
AB					/	/		3 mbsk
Bt					/	/		2c sbk
C	+				/			
Aeric Epiqualfs Fine Mixed Superactive Thermic								
Apg					/	/		1f&mabk
ABg					/	/		1cabk to massive
Btg1					/	/		massive
Btg2					/	/		massive
C	+				/			

		pH (1:1H2O)	pH (1:1KCl)	OM (%)	CEC	Cmol(+)Kg ⁻¹				BS (%)	Fe-d (g/kg)
						Ca ⁺⁺	Mg ⁺⁺	K ⁺	Na ⁺		
A		/	/	/	/	/	/	/	/		/
AB		/	/	/	/	/	/	/	/		/
Bt		/	/	/	/	/	/	/	/		/
C	+	/	/								
Apg		/		/	/	/	/	/	/		/
Abg		/	/	/	/	/	/	/	/		/
Btg1		/	/	/	/	/	/	/	/		/
Btg2		/	/	/	/	/	/	/	/		/
C	+	/	/								

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	()								C/Fμ
A	0-10	Sb	S	Chn,Chm	Qu,pl,Am	Wo,of,Tf	Po(op)	Ss	20/80
AB	10-50	Sb&Ab	S	Vu,Pn,Chn	Qu,Pl,Am, Mu	Tf,Co	Po(op)	Pos	35/65
Bt	50-100	Sb	S&M	Vu,Pn	Qu,Pl,Am, Mu	Tf,Co,Sc	Po(op&ds)	Pos	45/55
C	+100	Ap	W	-	Qu,Pl,Am, Mu	-	Po(S.S)	-	60/40
Apg	0-16	Ap	W	Pn,Chm,Vu	Qu,Pl,Am	Tf,Co	Po(op)	Ss	20/80
Apg	16-35	AbtoAp	W	Pn,Vu,Ch	Qu,Pl,Am	Tf,Co	Pos(op&ds)	Pos	35/65
Btg1	35-65	AbtoAp	W	Pn,Vu	Qu,Pl,Am	-	Po(op)	Pos & mos	20/80
Btg2	65-110	AbtoAp	W	Pn,Vu	Qu,Pl,Am	-	Po(op)	Pos & mos	20/80
C	+110	AbtoPr	W	Pn	Qu,Pl,Am	-	Po(S.S)	Ss&Cr	65/35

M S : Pr Ap Ab Sb : () +
 Of Wo : Mu Am Pl Qu : Pn Vu Chm Chn : W
 Porphyric Open Porphyric single spaced prophyric Po(S.S), double spaced po(d.s) : Cs : Co Tf
 Cr Mo Pos Ss : Po(op)



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Apg

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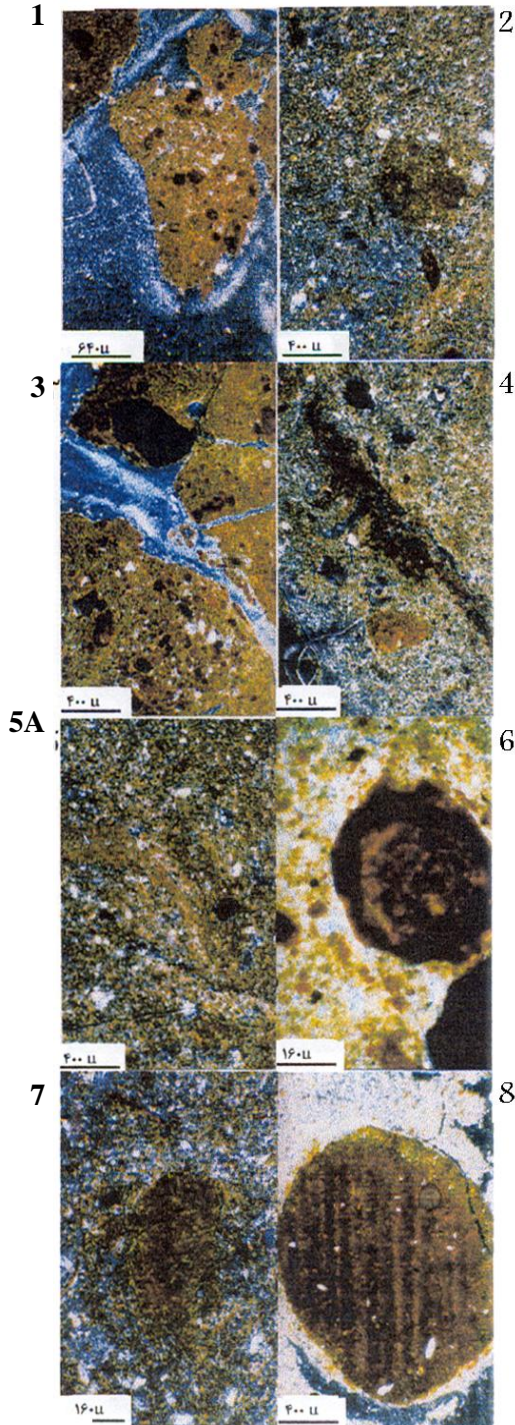
ABg

B_{tg1}

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B_{tg2}

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A
.XPL

XPL

Apg

XPL

- A

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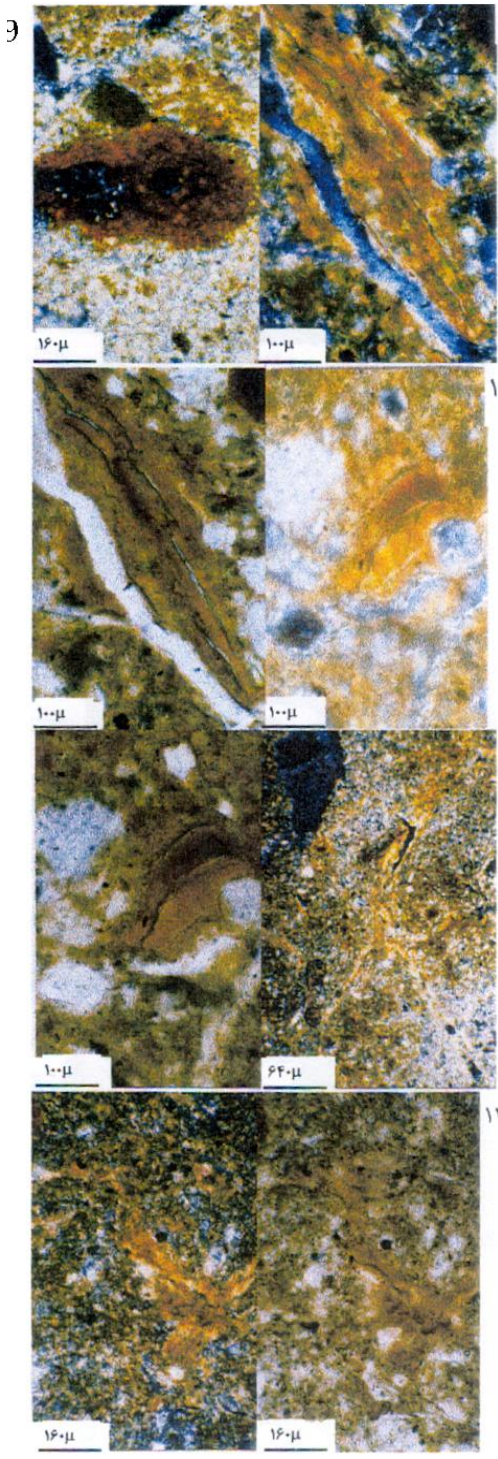
XPL

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PPL

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Btg₁

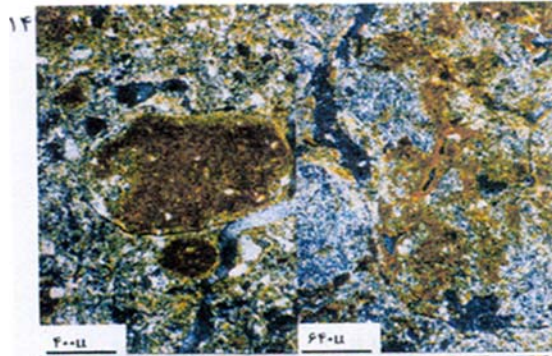
XPL

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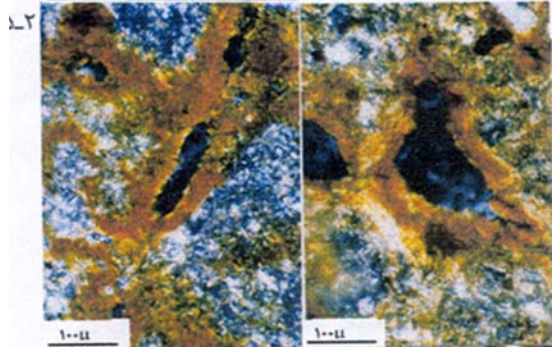


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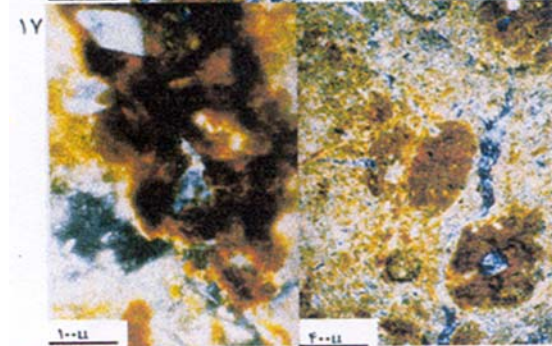
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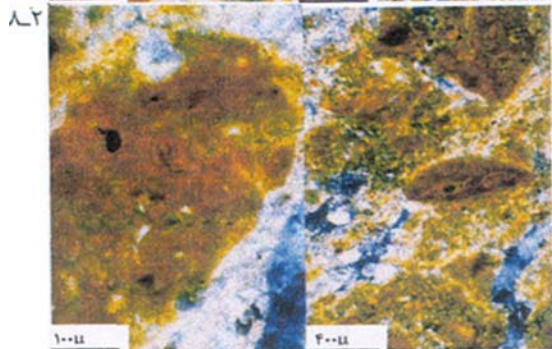
- Btg₁



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XPL



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XPL ()

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- Channel
- Vugh
- Anastomosing
- Planar
- Coarse/Fine
- Pseudomorph
- R.D.P. (Related Distribution Pattern)

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- Coatings
- Hypo-coatings
- Infillings
- Diffusion cutans

- b-fabric (birefrigent fabric)
- Stipple speckeled
- Asepic
- Porostriated
- Nodules
- Diffuse
- Mottles

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Btg2

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-Ferran

- Chambres
- Papules
- Ferri-argillan
- Superimposed

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Physico-Chemical and Micro-Morphological Changes in Paddy Soils Converted from Forest in Foomanat Region, Gilan

M. Akef¹

Sh. Mahmoudi²

M. Karimian Eghbal³

F. Sarmadian⁴

Abstract

A vast area of Iranian forests plain near the Caspian Sea have been converted into paddy soils. The special management practices required for rice cultivation have changed the physico-chemical and micro-morphological properties of these soil. During the course of this study, it was intended to show these changes taken place in foomanat region.

An adjacent pair of pedons in the forest land and paddy field in this area was selected. Morphological and physico-chemical studies were carried out. Microscopical studies on the thin sections and finally comparison between the pair of pedons were performed.

These changes in physico-chemical soil properties mainly included decrease in soil organic matter, change in volume and type of voids, creation of reducing conditions, soil aggregates, and damage of its structure. Micro-morphological changes included impregnative diffuse sesquiocidic nodules, friargillan infillings and subsequently producing the condition for fragipan formation. Therefore, in this region, conversion of forest soils to paddy soils provided special soil properties, which make it impossible to carry out reforestation even with the original species.

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