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Plastic  
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Mechanics**

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## Mechanics

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Mechanics**

*Page 7/44*

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#### **PowerPoint** ...

#### Mechanics

Until now it has been assumed that the size of the plastic zone near the crack tip is relatively small as compared to the specimen dimensions.

Thus, the effect of this zone has been neglected



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## Plastic Fracture

## Mechanics

and the strain  
field

surrounding the  
crack tip is  
dominated by  
linear elastic  
fracture  
mechanics

asymptotic field  
derived in  
chapter 4. In  
this chapter  
the effects of a  
non-negligible

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Plastic Fracture

plastic zone is

Mechanics

**eFunda: Elastic  
Plastic Fracture  
Mechanics (EPFM)**

In elastic-  
plastic fracture  
mechanics, a  
parallel issue  
to the elastic  
crack tip K-  
field is the  
stress and

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deformation  
fields near a  
crack tip in an  
elastic-plastic  
material. Rice  
and Rosengren  
[6-6] and  
Hutchinson [6-7]  
studied the Mode  
I problem for a  
power-law  
hardening  
material in the  
framework of

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Mechanics

deformation  
plasticity and  
obtained the  
near-tip stress  
and deformation  
fields, which  
are ...

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Mechanics**

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Fracture

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Mechanics.

## Mechanics

Elastic plastic  
fracture

mechanics (EPFM)

arose from the

desire to use

fracture

mechanics in

situations of

greater

plasticity,

where the crack-

tip plastic zone

is comparable in

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size to the crack length or specimen dimensions, including the extreme case where the crack is growing in a completely plastic strain field, for example at the root of a notch.

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**Fracture  
Mechanics -**

**Materials  
Technology**

One basic assumption in Irwin's linear elastic fracture mechanics is small scale yielding, the condition that the size of the plastic zone is

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## Plastic Fracture

small compared  
to the crack

length. However,  
this assumption  
is quite  
restrictive for  
certain types of  
failure in  
structural  
steels though  
such steels can  
be prone to  
brittle  
fracture, which



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Mechanics

has led to a  
number of  
catastrophic  
failures.

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Mechanics |**

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elastic-plastic  
fracture  
mechanics

methodology

developed in the

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UK is more relevant to welded ship construction, but most designers and fabricators in the United States are unfamiliar with this technology. The SSC asked Texas A&M University to

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Mechanics

undertake a  
research program  
on the

**Elastic Plastic  
Fracture  
Mechanics – an  
overview ...**

crack tip. It  
has enormous  
significance in  
elastic-plastic  
fracture  
mechanics. Key

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## Mechanics

Reference: J. R.  
Rice, Journal of  
Applied  
Mechanics, 1968.

(Related works:  
Eshelby,  
Progress in  
Solid State  
Physics 1956;  
Sanders, Journal  
of Applied  
Mechanics, 1960;  
Cherepanov,  
International

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Journal of  
Mechanics,  
Solids and

Structures,  
1969) SMA 2000  
MIT Fatigue and  
...

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FRACTURE  
MECHANICS - Ship  
Structure**

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Fracture  
Mechanics • The

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## Plastic Fracture

## Mechanics

high stresses at the crack tip cannot be sustained by, practically, any material. Thus, if the material does not fracture, a plastic zone (or damage zone or process zone) is formed around the crack tip.

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Mechanics

The damage is specific to the materials but it can be said that in general

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fracture  
mechanics  
approach for  
stress ...**

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Mechanics

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## Mechanics

Introduction

When does one need to use LEFM and EPFM? What is the concept of small-scale and large-scale yielding? - A free PowerPoint PPT presentation (displayed as a Flash slide show) on PowerShow.com -



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Mechanics

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**Mechanics - an**

**overview ...**

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Fracture

Mechanics (EPFM)

assumes

isotropic and

elastic-plastic

materials. Based

on the

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## Mechanics

assumption, the strain energy fields or opening displacement near the crack tips are calculated. When the energy or opening exceeds the critical value, the crack will grow.

Please note that

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Mechanics

although the  
term elastic-  
plastic is used  
in this ...

**Fracture  
mechanics -  
Wikipedia**

We used  $J$   
integral, an  
elastic-plastic  
fracture-  
mechanics  
parameter, to

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study the fracture process of bone. The J integral of bovine femur increased from 6.3 KJ/mm<sup>2</sup> at 23°C to 6.7 KJ/mm<sup>2</sup> at 37°C.

### **ELASTIC - PLASTIC FRACTURE MECHANICS**

This is a review

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## Plastic Fracture

of elastic-  
plastic fracture

mechanics as

related to

processes of

crack growth in

ductile and semi-

ductile

structural

metals. The

topics discussed

include

asymptotic and

numerical ...

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Mechanics

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Fracture  
Mechanics.**

**Lecture 1 |  
iMechanica**

'Elastic Plastic  
Stress and  
Strain  
Distributions  
Around Sharp  
Notches under  
Repeated Shear',  
Vol. 8, 51-58.

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Proceedings of  
Mechanics  
the 9th

International

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Applied

Mechanics ,

University of

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FRACTURE

MECHANICS A

CRITICAL REVIEW

The use of  
fracture  
mechanics as a  
tool for  
structural  
design and  
analysis has  
increased  
significantly in  
recent years.

Fracture



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theories provide relationships among fracture toughness, stress, and flaw size and are used, for example, to establish acceptance standards for material defects in ...

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**Elastic Plastic  
Fracture**

**Mechanics**

**(Chapter 8) -**

**Fracture ...**

Linear elastic  
fracture

mechanics A

large field of  
fracture

mechanics uses

concepts and

theories in

which linear

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## Plastic Fracture

elastic material behavior is an essential assumption. This is the case for Linear Elastic Fracture Mechanics (LEFM) .

Prediction of crack growth can be based on an energy balance.

The Gri?th

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criterion  
Mechanics

**Introduction to  
Fracture and  
Damage Mechanics**

Abstract.

Deformation  
theory of  
plasticity is  
applied to  
generalise  
fracture  
mechanics  
concepts to

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nonlinear  
material

behaviour.

Special emphasis is put on the J-integral as energy release rate and crack-tip intensity parameter in perfect analogy to linear-elastic fracture mechanics.

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plastic fracture  
mechanics -  
ResearchGate**

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Fracture  
Mechanics in a  
nutshell. The  
phenomenon of  
plastic  
deformation is  
readily  
demonstrated by

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simple experiments, such as bending a paper clip. But the theory of plasticity is rather intricate, which you will have to learn properly in a separate course.

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*Page 39/44*

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Plastic Fracture

Mechanics of

**compact bone**

IV. Elastic-  
plastic fracture  
mechanics (EPFM)  
Deformation  
theory of  
plasticity  $J$  as  
energy release  
rate HRR field,  
CTOD Deformation  
vs incremental  
theory of



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Plastic Fracture

plasticity R  
curves Energy

dissipation rate

V. Damage

Mechanics

Deformation,

damage and

fracture Crack

tip and process

zone Continuum

damage mechanics

(CDM)

**Elastic- Plastic**

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Plastic Fracture  
Mechanics

**Fracture in  
"Method of  
Finite Elements  
II"**

The  
elastic-plastic  
fracture  
mechanics  
parameter (J-  
integral) was  
evaluated using  
finite element  
analysis. The J-  
integral

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### Plastic Fracture

#### Mechanics

successfully characterized the crack growth rate under the present corrosive environments. Stress corrosion cracking was possible under both artificial seawater and ammonia-containing artificial

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Mechanics

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