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او
اطروحة الدكتوراه (Dissertation)

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محاور الدورة

اليوم الاول: الهيكل البنائي للاطروحة Thesis structure

اليوم الثاني : ملاحظات ارشادية حول اسلوب الكتابة.

اليوم الثالث : اسلوب كتابة المصادر References

الجزء الاول

الهيكل البنائي للاطروحة

Thesis structure

الهيكل البنائي للاطروحة Thesis structure

يتكون الهيكل البنائي للاطروحة بصورة عامة من 22 فقرة كما مبين في ادناه:

1- عنوان الاطروحة باللغة الانكليزية Title (in English)

2- الاية القرانية Quranic verse

3- اقرار المشرف Supervisor certification

4- اقرار الخبير اللغوي Linguistic expert Certification

5- اقرار لجنة المناقشة Examining Committee certification

6- الاهداء Dedication

7- التشكرات Acknowledgements

8- الخلاصة Summary

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Chapter Three (material and methods)

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20- الملاحق Appendices

21- الخلاصة (بالعربي) Summary (Arabic)

22- العنوان (باللغة العربية) Title(Arabic)

Republic of Iraq
Ministry of Higher Education and Scientific Research
University of Baghdad
AL-Khwarizmi College of Engineering
Department of Biochemical Engineering

Design of Bio-pile Reactor for Bioremediation of Petroleum Hydrocarbon Contaminated Soil

A thesis

Submitted to Al-khwarizmi College of Engineering University of Baghdad

In partial fulfillment of the requirements for the degree of Master of Science in Biochemical Engineering

By:

Noor Mohsen Jabbar

Supervised by:

Prof. Dr. Alaa Kareem Mohammed

2018 A.D

1439 A.H

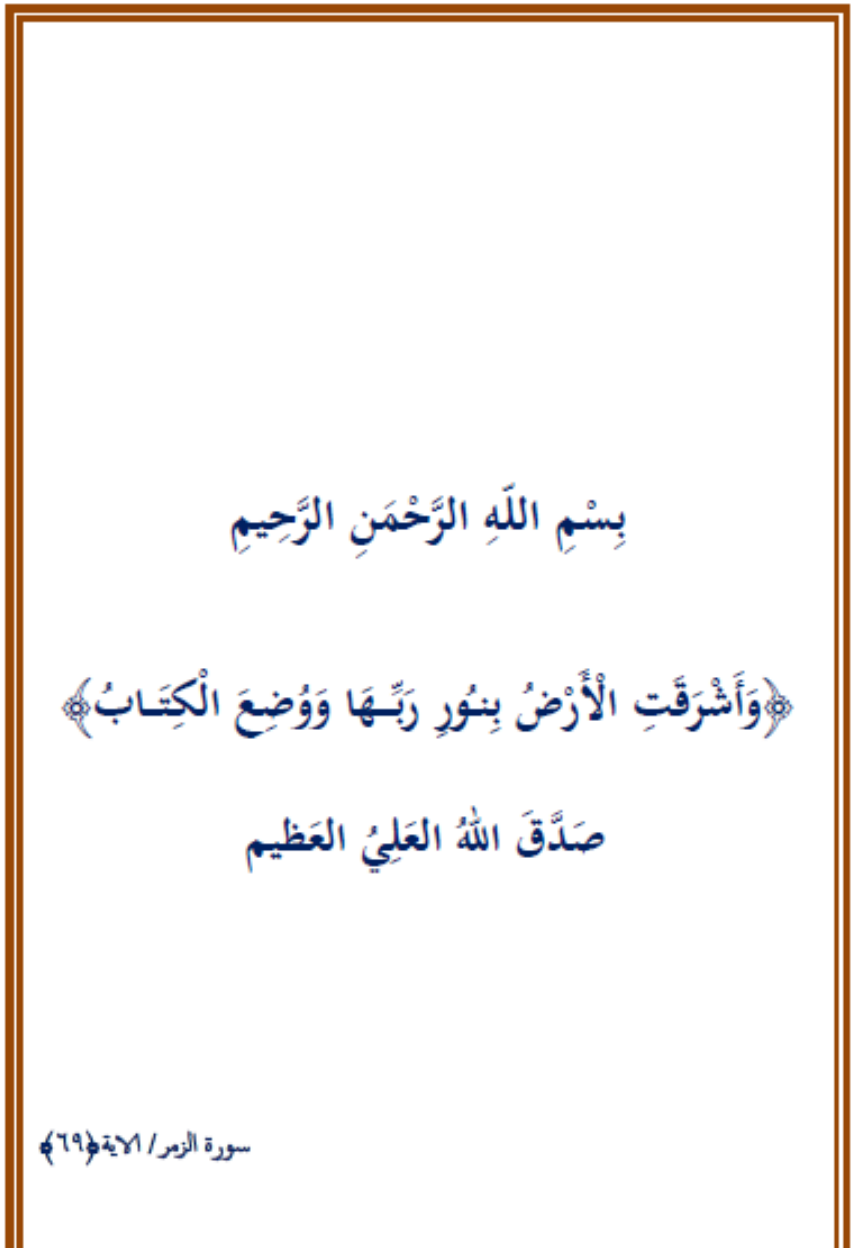
1- عنوان الرسالة

Title (English)

2- الاية القرانية

تكتب بخط القران الكريم.

يكتب اسم السورة ورقمها.



3- اقرار المشرف

Supervisor Certification

We certify that this thesis entitled " **Amino acid salt promoted aqueous potassium carbonate solution for carbon dioxide absorption from the gas**" presented by ***Rana Esam Ahmed***, has been carried out under our supervision at the department of chemical Engineering/ University of Tikrit in partial fulfillment of the requirements of the degree of ***Master of Science in Chemical Engineering***.

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Name: **Prof. Dr. Ahmed Daham Wiheeb**

In view of the available recommendation, I forward this thesis for debate by the examining Committee.

Signature:
Name: **Dr. Ahmed Hamad Abdullah**
Head of the chemical Engineering Department
Date: / / 2021

4- اقرار الخبير اللغوي

Linguistic Expert Certification

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" Production of biodiesel from waste oil using CaO egg shell waste derived heterogeneous catalyst"

And corrected any grammatical mistakes I found. The thesis is therefore, qualified for debate.

Signature"
Name:
Date: / / 2021

5- اقرار لجنة المناقشة

Examining Committee Certification

We certify, as an examining committee, that we have read this thesis, examined the student in its content and found that the thesis meet the standard for the degree of master of Science in Biochemical Engineering.

Signature

Name: ***Prof. Dr. Alaa K. Mohammed***

(Chairman)

Signature:
Name:
(Member)

Signature:
Name:
(Member)

Signature:
Name:
(Supervisor)

Signature:
Name:
(Supervisor)

Approved by the University of Baghdad

Signature

Name: ***Prof. Dr. Saba J. Nemaa***

(*Dean of College of Engineering*)

Data / / 2021

6- الاهداء

Dedication

To My Family

For Their Always Care,

Encouraging and Believing in Me

To do My Best.

NooR
2018

Acknowledgements

*First, my great thanks to **ALLAH** for his mercy and blessing.*

*Secondly, I would like to express my sincere thanks and deep gratitude to my supervisor **Prof. Dr. Mohammed A. Atiya** for his helpful efforts, advices, interest and the trust he showed in me during my work.*

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*Finally, my deep and sincere gratitude to **My Mother**, **my sisters** **(Aroa and Eman)** for their continuous help and support throughout my life and studies.*

7- التشكرات

- يجب مراعاة التسلسل بذكر التشكرات.
- من هنا يبدا الترقيم اللاتيني.

8- الخلاصة

- يذكر باختصار موضوع البحث
- تذكر العوامل (المتغيرات) التي تم دراستها
- تذكر النتائج النهائية التي تم الحصول عليها

Abstract

The aim of this work is to investigate the synthesis of biodiesel from waste cooking sunflower oil (WCSO) and calcined eggshell as low-cost catalyst in a batch reactor. The eggshell was calcined in a muffle furnace at temperatures 700,750, 800, 850, and 900°C and duration 1, 2, 3, 4, and 5 hr. The chemical and physical properties of the catalyst were carried out using Fourier transforms infrared spectrophotometry (FTIR), X-ray diffraction (XRD), Emmet and Teller (BET), and Scanning Electron Microscopy (SEM) with Energy Dispersive X-Ray Analysis (EDX). The best catalyst performance (yield of biodiesel 96.11 wt. %) was obtained at 900 °C for 3 h. The BET and pore volume of the prepared catalyst were 12.5 m^2/g and 0.0033 cm^3/g, respectively.

9- الفهرس

يكون بشكل جدول يشمل:-

- رقم الفصل والارقام الفرعية
- اسم الموضوع
- رقم الصفحة

List of Tables

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10- قائمة الجداول

وتضم :-

- رقم الجدول. (لاحظ ان رقم الجدول يتكون من جزئين : الرقم الاول يشير الى رقم الفصل والثاني الى تسلسل الجدول ضمن الفصل الواحد)
- عنوان الجدول
- رقم الصفحة

List of Figures

11- قائمة الاشكال

وتضم :-

- رقم الشكل. (لاحظ ان رقم الشكل يتكون من جزئين : الرقم الاول يشير الى رقم الفصل والثاني الى تسلسل الشكل ضمن الفصل الواحد)
- عنوان الشكل
- رقم الصفحة

Nomenclatures

Symbol	Discretion	Unit
∑A	Total peak area of the methyl ester in C_{14} to that in $C_{24:1}$	
A_{st}	Peak corresponding to methyl heptadecanoate	
B	The HCl required by Blank	ml
C	The standard concentration of potassium hydroxide solution	mole/l
C	Carbon atoms	
C_{st}	Concentration of the methyl heptadecanoate	mg/ml
D	Double bond	
M	Mass of the sample	mg
R	Hydrocarbon group	
S	The HCl required by sample	ml
V	Standard volume of potassium hydroxide solution	ml
V_{st}	Volume of the methyl heptadecanoate	ml
W_1	Weight of empty pycnometer	g
W_2	Weight of pycnometer with water	g
W_3	Weight of pycnometer filled oil.	g
θ	Bragg angle	

12- التسميات

وتضم :-

- الرمز
- وصف الرمز
- الوحدات (ان وجدت)

13- قائمة المختصرات

وتضم :-

- ❑ المختصر
- ❑ وصف المختصر

List of Abbreviations

Abbreviation	Description
BHM	Bushnell Haas Medium
C:N	Carbon to nitrogen
CFU	Colony forming units
DNAPLs	Denser non-aqueous phase liquids
FT-IR	Fourier Transform Infrared Spectroscopy
GC	Gas Chromatography
LNAPLs	lighter non-aqueous phase liquids
NAPLs	Non-aqueous phase liquids
NPK	Nitrogen, phosphorus and potassium
PAHs	Polycyclic Aromatic Hydrocarbons
rpm	Revolutions per minute
TPHs	Total petroleum hydrocarbons
USEPA	United States Environmental Protection Agency

CHAPTER ONE

INTRODUCTION

1.1 Introduction

In the light crises of depletion, petroleum fuel and high petroleum fuel price, there is a strong need to reduce the world's reliance on fossil fuels and replace it with other more sustainable energy sources such as geothermal energy, solar energy, tidal energy, wind energy, and biofuel (Marinković *et al.,* 2016; Nurdin *et al.,* 2017).

The energy crisis of the 1970s led to vigorous investigations pertaining to the use of biodiesel as an alternative fuel. Biodiesel is a promising alternative to diesel fuel produced from crude oil due to its environmentally friendly properties such as non-toxicity; no sulfur content and a very renewable nature (Amani *et al.,* 2016). Depending on these features, the renewable energy during incoming years and producing the same quantities of the energy from crude oil is shown in Figure (1.1).

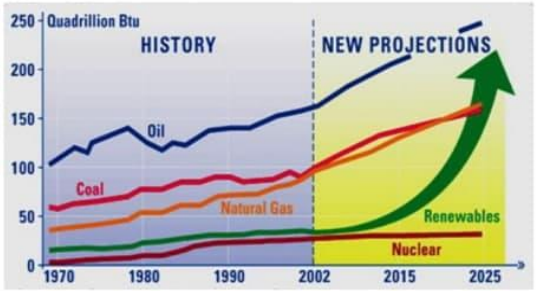

Figure (1.1): The increase of renewable energy to 2025 (Ngoya, 2015)

14- المقدمة

تشمل المقدمة الاتي:-

- التعريف بموضوع البحث
- اهمية الموضوع
- اهداف الدراسة والبحث
- لاحظ بدا من المقدمة يبدا الترقيم الانكليزي

Chapter two
Literature survey

2.1 Basic Information about Bioremediation

2.1.1 Bioremediation

Bioremediation means the use of living organisms to solve an environmental problem such as contaminated soil or contaminated water. it's a technique to remove contaminants from the environment and thus restore the original natural environment also prevent more pollution (Basharudin, 2008).The addition of active microbes increases the number of microorganisms and thereby accelerates the bioremediation process. Effective microbes can be found in oil-contaminated soils (Zeron, 2012). Microorganisms in bioremediation processes used the contaminants as nutrients and energy sources (Kumar *et al*., 2011).

2.1.2 Bioremediation techniques

Bioremediation techniques fall into two categories, bioaugmentation and biostimulation:

2.1.2.1 Bioaugmentation

It's the addition of particular microorganisms that have ability to degrade the compounds at the polluted site. The hydrocarbon-degrading organisms were collected from different sites, they are adapted to withstand various environmental conditions like variable temperature and pH change in addition to the good ability to utilize nutrients available such as nitrogen, phosphorus, and oxygen so they can clean the contaminated site quickly (Kumar and Gopal, 2015). The increased efficiency of a treatment system is due to an increased density of microbial cells that

15-استعراض المراجع

ويشمل استعراض الدراسات السابقة وكذلك المراجع التي تتناول مواضيع قريبة من موضوع البحث

16- الفصل الثالث
المواد وطرائق العمل

يشمل هذا الفصل الاتي:-

- ❖ المواد التي استخدمت في البحث
- ❖ الاجهزة التي استخدمت في البحث
- ❖ وصف الجهاز او المنظومة العملية
- ❖ طريقة العمل
- ❖ اجهزة القياس
- ❖ الفحوصات

Chapter Three
Materials and Methods

3. Materials and methods
3.1 Materials
3.1.1 Chemicals:

Table (3.1) illustrates the chemical materials that used in this study and their suppliers.

Table (3.1) List of chemical materials

Chemicals	Company	Country
Agar-Agar	Fluka	Swaziland
$CaCL_2.2H2O$	LTD	India
CCL_4	E. Merck	Darmstadt
Chloroform	TeTenal photowerk	Berlin
Dichloromethane	BIOSOLVE	France
Diesel	Al-Dura oil refinery	Baghdad -Iraq
Ethanol	Scharlau	Spain
$FeCL_3$	BDH	England
Hydrochloric acid	LTD	India
K_2HPO_4, KH_2PO_4, $MgSO_4.7H_2O$	Fluka	Swaziland
NH_4NO_3	REACHIM	USSR
Nutrient agar	HiMedia	India
Nutrient broth	OXOID	England
Sodium sulphates anhydrous	Merck	Germany
Sulfuric acid	HIMEDIA	India

Chapter four

Results and Discussion

4.1 Isolation and Identification of Diesel-Utilizing Bacteria

Bacterial strains capable of decomposing diesel were isolated using Bushnell-Haas medium to differentiate between hydrocarbons degrading bacteria and non-degraded bacteria. Four different strains were isolated from the contaminated soil, which was designated as NA- 1, NA- 2, NA- 3, and NA- 4. The biochemical tests were conducted on these strains and table (4.1) shows these characteristics.

Table (4.1) Morphological characteristics, gram stain and biochemical tests

Characteristics	bacterial colonies			
	NA- 1	NA- 2	NA- 3	NA- 4
Color of the colony	creamy	golden yellow	off-white	pale yellow
Shape of the cell	rod	round	rod	rod
Gram's Staining	-	+	-	-
Motility	motile	non-motile	motile	motile
Spore-forming	-	-	-	-
Catalase test	+	+	+	+
Oxidase test	-	-	+	-
Urease production test	+	+	-	-

(+) = positive result. (-) = negative result.

17- الفصل الرابع
النتائج والمناقشة

وتشمل

- ❑ عرض النتائج التي تم الحصول عليها
- ❑ مناقشة النتائج ووضع التفسير لها.
- ❑ مقارنة النتائج مع نتائج الدراسات السابقة

Chapter five

Conclusions and recommendations for future work

5.1 Conclusions

The following are the conclusions of this study:

1. Three strains of gram-negative bacteria were isolated from diesel-contaminated soil which where *Sphingomonas paucimobilis*, *Pentoae species*, *Enterobacter cloacae*, and one strain of Gram-positive bacteria as *Staphylococcus aureus*.
2. The metabolic activity of isolated bacteria showed a good level of biodegradability at different concentrations of diesel when used individually. They also demonstrated the best biodegradability when used together in a mixed culture which reached 88.4%.
3. The addition of nutrients to the soil contaminated with diesel stimulated the microbial population and showed an increase in degradation rates, especially during the early stages of degradation.
4. An overall 75 % of the total petroleum hydrocarbons (TPH_s) were removed from the amended soil and 33 % of the control soil at the end of study period.
5. An *ex-situ* bioremediation (bio piles) of diesel polluted soil performed under aerobic conditions has shown to be an effective remediation method for hydrocarbons contaminated soils.

18-الفصل الخامس

الاستنتاج والتوصيات للدراسة المستقبلية

يضم هذا الفصل:-

- ❖ اهم النتائج التي تم الحصول عليها
- ❖ اهم الملاحظات التي تم الخروج بها من الدراسة
- ❖ المقترحات للدراسة المستقبلية

19-المصادر References

A

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Afzal M., Sessitsch A., Yousaf S., and Reichenauer T. G. (2012). "The Inoculation Method Affects Colonization and Performance of Bacterial Inoculant Strains in the Phytoremediation of Soil Contaminated with Diesel Oil". *International Journal of Phytoremediation*, 14, pp. 37–41.

20- الملاحق

APPENDICES
(A - B)

Appendix (A)

Figure (A.1) Laboratory report of bacterial isolates identification by VITEK 2 system (*Enterobacter cloacae*)

Al-Rosheba medical laboratory

bioMérieux Customer: ANAR
System #:

Laboratory Report

Printed Jul 26, 2017 20:07 CDT
Printed by: Labadmin

Isolate: Moor Na1-1 (Approved)

Bench: other

Card Type: GN Bar Code: 2410100103502675 Testing Instrument: 0000014EED456 (12384)
Setup Technologist: Laboratory Administrator(Labadmin)

Bionumber: 0625604153552010
Organism Quantity:

Selected Organism: Enterobacter cloacae complex

Comments:

Identification Information	**Card:** GN	**Lot Number:** 2410100103	**Expires:** Mar 6, 2018 12:00 CST
	Completed: Jul 19, 2017 23:01 CDT	**Status:** Final	**Analysis Time:** 4.88 hours
Organism Origin	VITEK 2		
Selected Organism	99% Probability	**Enterobacter cloacae complex**	
	Bionumber: 0625604153552010		**Confidence:** Excellent identification
SRF Organism			

Analysis Organisms and Tests to Separate:

Enterobacter cloacae complex	
Enterobacter kobei	UREASE(83),LACTOSE(88),MOB(82),dSORBITOL(94),
Enterobacter hormaechei	UREASE(87),MOB(53),dSORBITOL(8),
Enterobacter cloacae ssp cloacae	UREASE(100),LACTOSE(30),MOB(99),dSORBITOL(100),
Enterobacter cloacae ssp dissolvens	UREASE(100),MOB(0),dSORBITOL(100),
Enterobacter ludwigii	UREASE(0),LACTOSE(80),MOB(100),dSORBITOL(100),

Analysis Messages:

Contraindicating Typical Biopattern(s)

Installed VITEK 2 Systems Version: 08.01
MIC Interpretation Guideline:
AES Parameter Set Name:

Therapeutic Interpretation Guideline:
AES Parameter Last Modified:

Page 1 of 2

لاحظ انه للملاحق
ترقيم خاص بها

Appendix (B)

B.1 FT-IR Spectrum at concentrations 0.7 % and 3 % (v/v) of diesel by each single isolates after 7days of incubation, from figure (B.1) to figure (B.8).

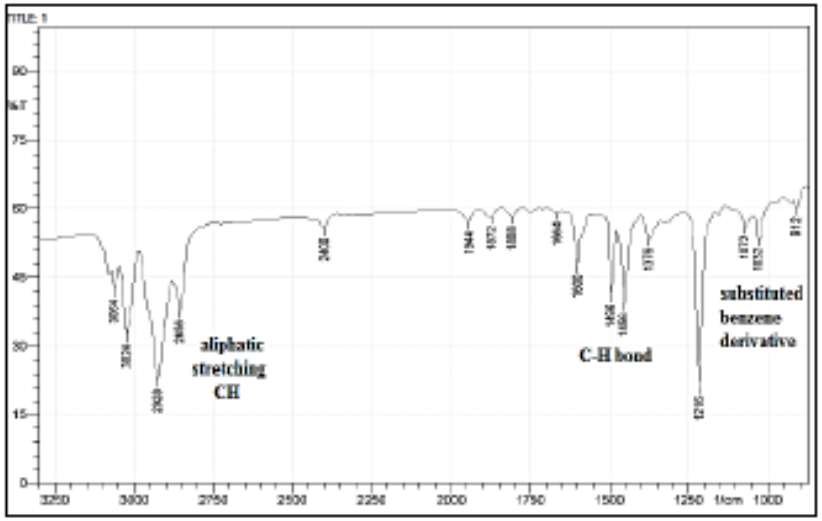


Figure (B.1) FT-IR spectrum of diesel at concentration 0.7% treated by *E. cloacae* after 7 days

21- الخلاصة بالعربي

يجب ان تطابق
الخلاصة بالانكليزي

الخلاصة

ركزت هذه الدراسة على معالجة التربة الملوثة بالمركبات النفطية (الديزل) و التي تسببت في مشاكل بيئية خطيرة. تم عزل أربعة سلالات بكتيرية من عينات التربة الملوثة بالديزل. العزلات التي تم تشخيصها بواسطة نظام Vitek 2، هي كل من *Enterobacter cloacae*، *Staphylococcus aureus*، *Sphingomonas paucimobilis* و *Pentoae species* . وقد تم التحقق من الأنشطة البيولوجية وقدرات التحلل البيولوجي لكل عزلة بشكل منفرد و للخليط البكتيري في وسط Bushnell-Haas medium مُزود بتراكيز مختلفة من الديزل (0.7 ,1 ,3 %) (v/v) كمصدر وحيد للكاربون والطاقة.

تم اجراء اختبارقابلية إنتاج المستحلبات الحيوية باستخدام Sigma 703D stand-alone tensiometer وأظهر الاختبار أن هذه العزلات هي من منتجي المستحلبات الحيوية. أفضل النتائج لاختبار انخفاض الشد السطحي تم تحصيلها عند استخدام الخليط البكتيري حيث اظهرت النتائج ان المستحلبات الحيوية المُنتجة من قبل الخليط البكتيري قامت بخفض الشد السطحي للوسط من ٦٦ (ملي نيوتن/متر) الى ٣٨,٧٥ و ٣٣,٨٩ و ٣٥,١٥ (ملي نيوتن/متر) وفقاً لتراكيز الديزل (١,٠,٧ و٣) % على التوالي.

بعد ٢٨ يوما من الحضانة عند درجة حرارة ٣٠ درجة مئوية، فإن معدل التحلل الحيوي من قبل الخليط البكتري عند التراكيز ٠,٧ و ٣٪ (v / v) وصل الى ٧٩,٣ % و٧٠,٣١% على التوالي. في حين أظهر الخليط البكتري قدرة ممتازة على التحلل الحيوي عند تركيز ١٪ (v / v) من الديزل حيث وصلت إلى ٨٨,٤٪. كما أظهرت السلالات الفردية نفس الأداء عند التركيز ١٪ (v/v) من الديزل على النحو التالي: ٨٥,١٪ من قبل *S.paucimobilis*، ٨٤٪ من قبل *Pentoae sp.*، ٧٩٪ من قبل S.aureus و ٧٤٪ من قبل *E.cloacae*. وبالتالي، أظهرت النتائج أن هذه البكتيريا المعزولة فعالة في التحلل البيولوجي للديزل عند استخدامها بشكل منفصل و عند استخدامها كخليط بكتيري.

12- العنوان باللغة العربية

جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة بغداد
كليه الهندسة الخوارزمي
قسم الهندسة الكيميائية الأحيائية

تصميم منظومة Bio-pile لمعالجة التربة الملوثة بالمركبات الهيدروكاربونية

رسالة

مقدمة لقسم الهندسة الكيميائية الأحيائية / كليه الهندسة الخوارزمي - جامعة بغداد

كأحد المتطلبات لنيل شهادة الماجستير

في علوم الهندسة الكيميائية الأحيائية

أعداد :

نور محسن جبار

بأشراف

أ.د. علاء كريم محمد

اليوم الثاني

ملاحظات ارشادية حول اسلوب الكتابة

ملاحظات ارشادية حول اسلوب الكتابة

اولا : تجنب استخدام الجملة الطويلة.

Example

Biodiesel has many main advantages over conventional diesel fuel, it contains a higher Cetane number, no aromatics and considered oxygenated fuel making it a clean burning fuel and producing less unburned hydrocarbons (HC), particulate matter (PM), and carbon monoxide (CO) compared with the conventional diesel fuel (Ribeiro *et al.,* 2011)

Alternative

Biodiesel has many main advantages over conventional diesel fuel. It is regarded as a clean burning fuel since it has a higher Cetane number and contains no aromatics as well as considered as oxygenated fuel. As comparing with the conventional diesel fuel, biodiesel producing less unburned hydrocarbons, carbon monoxide (CO) and particulate matter (PM) (Ribeiro *et al.,* 2011).

ثانيا: كلمة Figure

1- بالامكان اختصار كلمة (Figure) الى (Fig.)

مثلا تكتب كلمة (Figure 2.1) ويمكن اختصارها الى كلمة (Fig.2.1)

2- اذا وردت كلمة (Figure) في بداية الجملة تكتب كاملة ولا تختصر.

3- تبدأ كلمة (Figure) بحرف كبير (capital letter) اينما وردت

Example.

Figure (4.22) shows the FAME yield after 3hr reaction as a function of the calcination temperature. As proof of the results, the temperature of calcination is a major factor influencing the performance of the catalyst. From Fig. (4.22), it can be seen that the FAME content increased from 2.2 wt% to 78.535 wt% as the temperature of calcination has changed from 700 °C to 900 °C for a calcined catalyst sample for 3hr.

3-: عنوان اللشكل (Title) يكتب اسفل الرسم وليس فوق الرسم

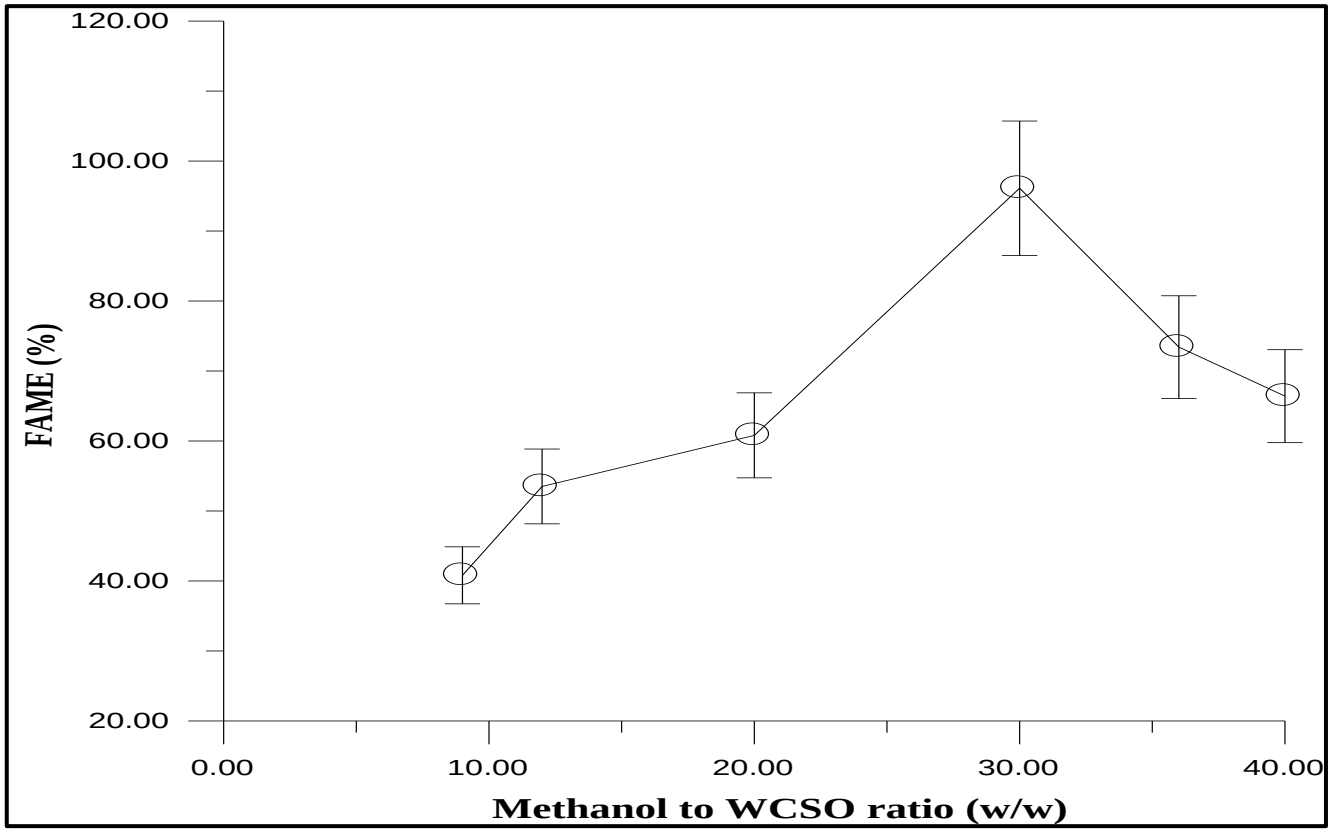


Figure (4.24): Effect of oil/methanol molar ratio on FAME content (experimental conditions: 65°C; 5 wt. % catalyst loading; 3hr)

Table (4.1): Free fatty acid, acid value, viscosity, density, and Saponification value of treated waste cooking sunflower oil

Concentration	**Waste cooking oil after pretreatment**
Free fatty acid %	0.901
Acid value (mg KOH/g of oil)	1.7
Viscosity at 40°C (cp)	38.7
Density at 25°C (kg/m^3)	910
Saponification value	187.935

رابعا : الاشارة الى المصدر في المتن

1- يشار الى المصدر بالشكل التالي (Robert , 2013)

- Water consists of oxygen and hydrogen (Ellen, 1940).

2- اذا وجد باحثين في المصدر يكتب بالشكل التالي (Robert and Hadi , 2013)

3- اذا وجد ثلاث باحثين او اكثرفي المصدر فيكتب بالشكل التالي (Robert *et al.* , 2013)

4- في حالة الاشارة الى اكثر من مصدر بنفس الوقت فيكتب بالشكل التالي
(Buasri *et al.,* 2013; Taufiq and Huda., 2015)

5-اذا اشير الى الباحث كفاعل أو مفعول به او ضمير فيكتب بالشكل التالي

Lee *et al.* (2011) observed the BET surface area of 9 m^2/g for CaO catalyst obtained under similar calcination condition of 800 °C

It was found that calcined samples for the above mentioned temperatures were not enough to convert the eggshell to CaO catalyst as noted by Ekeoma (2017).

Punctuation Marks علامات الترقيم

There are many punctuation marks. The most frequently used of these marks will be covered here, such as full stop(.), comma(,), colon (:) and semicolon(;).

1- Full stop (.)

تستخدم في نهاية الجملة

- Water consists of oxygen and hydrogen.

- The first step of treatment is to remove the settleable and dissolved solids suspended in the water.

- Biodiesel has many main advantages over conventional diesel fuel. It is regarded as a clean burning fuel ✓

- Biodiesel has many main advantages over conventional diesel fuel .It is regarded as a clean burning fuel ✗

2- Comma (,)

- تستخدم في عطف الجمل

- This process is only the first step, and it has mainly removed larger particles in the water, but some smaller particles may still remain, as well as chemicals and bacteria.
- Sand filters can be set up in two ways, either the water flows in from the bottom and exits the top, or the water flows in from the top and exits the bottom.

- تستخدم عند فصل اجزاء القائمة

- There are many methods for treatment such as chemical, physical, thermal, and biochemical.
- This electrolysis is conducted in either a mercury cell, a diaphragm cell, or a membrane cell.
- The method is cheap, clear, easy, and well known.
- The method is cheap, clear ,easy ,and well known. ✗
- The method is cheap,clear, easy ,and well known. ✗

- تستخدم في الجمل الاعتراضية

- Chemicals, namely organic solvents, can be used for this purpose.

- The used method, settling, is more efficient.

3- Colon (:)

- تستخدم قبل التعداد في الجملة

- Glucose consists of three elements: carbon, oxygen, and hydrogen.

- There are three ways signals transmission: electrical, pneumatic, and hydraulic.

- there are two types of electric charges, positive charges and negative charges ✘

3- Semicolon (;)

الفاصلة المنقوطة

- تستخدم عندما تكون هنالك جملتين منفصلتين ولكنهما مرتبطتين بشكل قوي في المعنى. اي عندما تشرح الجملة التالية الجملة السابقة. في الحقيقة الفاصلة المنقوطة تكون قوتها مابين النقطة (.) والفارزة (,). فائدتها الوقوف عليها عند القراءة .

- Using this method is very dangerous**;** it releases toxic gases and leaves solid deposits harmful to human health.

- The method is desirable **because** its efficiency is high and its cost is low. ✓
- The method is desirable **since** its efficiency is high and its cost is low. ✓
- The method is desirable**.** Its efficiency is high and its cost is low. محيرة ومربكة
- The method is desirable**;** its efficiency is high and its cost is low. ✓ الارصن لغويا

اسلوب استخدام بعض كلمات ربط الجمل

Furthermore بالاضافة الى

- This technique is very efficient. **Furthermore,** it is easy to carry out.
- This technique is very efficient, **furthermore,** it is easy to carry out.
- This technique is very efficient; **furthermore,** it is easy to carry out.
- This technique is very efficient.furthermore it is easy to carry out. ✗

Moreover وعلاوة على ذلك

The rent is reasonable, and moreover, the location is perfect.

The rent is reasonable. **Moreover**, the location is perfect.

The rent is reasonable. The location is, moreover, perfect.

The rent is reasonable moreover the location is perfect. ✗

Therefore وعليه

- The solvent is not organic, and **therefore** can not be used in the experiment.
- The solvent is not organic, **therefore** can not be used in the experiment.
- The solvent is not organic. **Therefore,** it can not be used in the experiment.
- The solvent is not organic. It **therefore** can not be used in the experiment.
- The solvent is not organic **therefore** can not be used in the experiment. ✗

However ومع ذلك

- تستخدم في بداية الجملة الثانية

- The engineers said the bridge was now safe, **however**, no one wanted to risk crossing it.

- The engineers said the bridge was now safe. **However**, no one wanted to risk crossing it.

- The engineers said the bridge was now safe. No one, **however**, wanted to risk crossing it.

Exercise 1

Correct the following sentences:

- Fructose consists of three elements, carbone and oxygen and hydrogen

- In the Mannheim process sodium chloride is used for the production of sodium sulphate, hydrochloric acid.

- Sodium chloride is heavily used so even relatively minor applications can consume massive quantities

- there are Two types of electric charges, positive charges and negative charges

- It works like magnets and in fact electricity creates a magnetic field in which similar charges repel each other and opposite charges attract.

- All the matter in the universe is made of tiny particles with positive and negative or neutral charges

Solution of exercise 1

- Fructose consists of three elements: carbone , oxygen, and hydrogen.
- In the Mannheim process, sodium chloride is used for the production of sodium sulphate **and** hydrochloric acid.
- Sodium chloride is heavily used, so even relatively minor applications can consume massive quantities.
- **T**here are Two types of electric charges: positive charges and negative charges.
- It works like magnets, and in fact, electricity creates a magnetic field, in which similar charges repel each other and opposite charges attract.
- All the matter in the universe is made of tiny particles with positive, negative or neutral charges.

Exercise 2

Water is an inorganic, transparent and tasteless, odorless, and nearly colorless chemical substance: which is the main constituent of Earth's hydrosphere. water is so important : it represents the fluids of most living organisms furthermore it is vital For all known forms of life. Its chemical formula is H_2O. Water consists of two elements, oxygen and hydrogen, which connected by covalent bonds. Water is the name of the liquid state of H_2O at standard ambient temperature, Pressure. It forms precipitation in the form of rain and aerosols in the form of fog. clouds are formed from suspended droplets of water and ice, its solid state. When finely divided, crystalline ice may precipitate in the form of snow. The gaseous state of water is steam or water vapor. Water moves continually through the water cycle of evaporation, transpiration, condensation, precipitation, and runoff, which usually reaching the sea

Solution of exercise 2

Water is an inorganic, transparent, tasteless, odorless, and nearly colorless chemical substance, which is the main constituent of Earth's hydrosphere. Water is so important ; it represents the fluids of most living organisms, furthermore, it is vital for all known forms of life. Its chemical formula is H_2O. Water consists of two elements: oxygen and hydrogen, which connected by covalent bonds. Water is the name of the liquid state of H_2O at standard ambient temperature and pressure. It forms precipitation in the form of rain and aerosols in the form of fog. Clouds are formed from suspended droplets of water and ice, its solid state. When finely divided, crystalline ice may precipitate in the form of snow. The gaseous state of water is steam or water vapor. Water moves continually through the water cycle of evaporation, transpiration, condensation, precipitation, and runoff, which usually reaching the sea.

الاستلال (الانتحال) Plagiarism

يعرف الانتحال على انه ((تقديم الباحث عبارات او جمل او افكار او عمل تعود لشخص اخر، وتقديمه على انه عمل خاص به اي دون الاشارة الى مصدره الاصلي. ويعد الانتحال بهذه الطريقة سرقة علمية وهو عمل خاطئ سواء كان متعمدا او غير متعمد.

كيف نقلل او نتخلص من الاستلال

ان افضل اسلوب لتقليل الاستلال اوالتخلص منه هو اعادة صياغة ما ذكره المؤلف الاصلي بشكل جديد تماما ، بمعنى ان يقوم الباحث بقراءة فقرة ما ثم يعبر عن فهمه لتلك الفكرة باسلوب اخر على ان لا تفقد الفكرة الاصلية من معناها الحقيقي، ومع ذلك يجب على الباحث توثيق المصدر الاصلي والا يعتبر ذلك انتحالا علميا.

Example

The most important function of hydrogen in the human body is to keep you hydrated. Water is made up of hydrogen and oxygen and is absorbed by the cells of the body. Therefore, it is a crucial element which is used not in our body but also as a fuel, in military weapons etc.

نسبة الاستلال 100%

Hydrogen has an essential function in keeping the human body hydrated. Cells of our bodies absorb water which made up of oxygen and hydrogen. So, hydrogen is regarded as an essential element needed by our bodies. Moreover, it is used in many fields such as fuel, military weapons, etc.

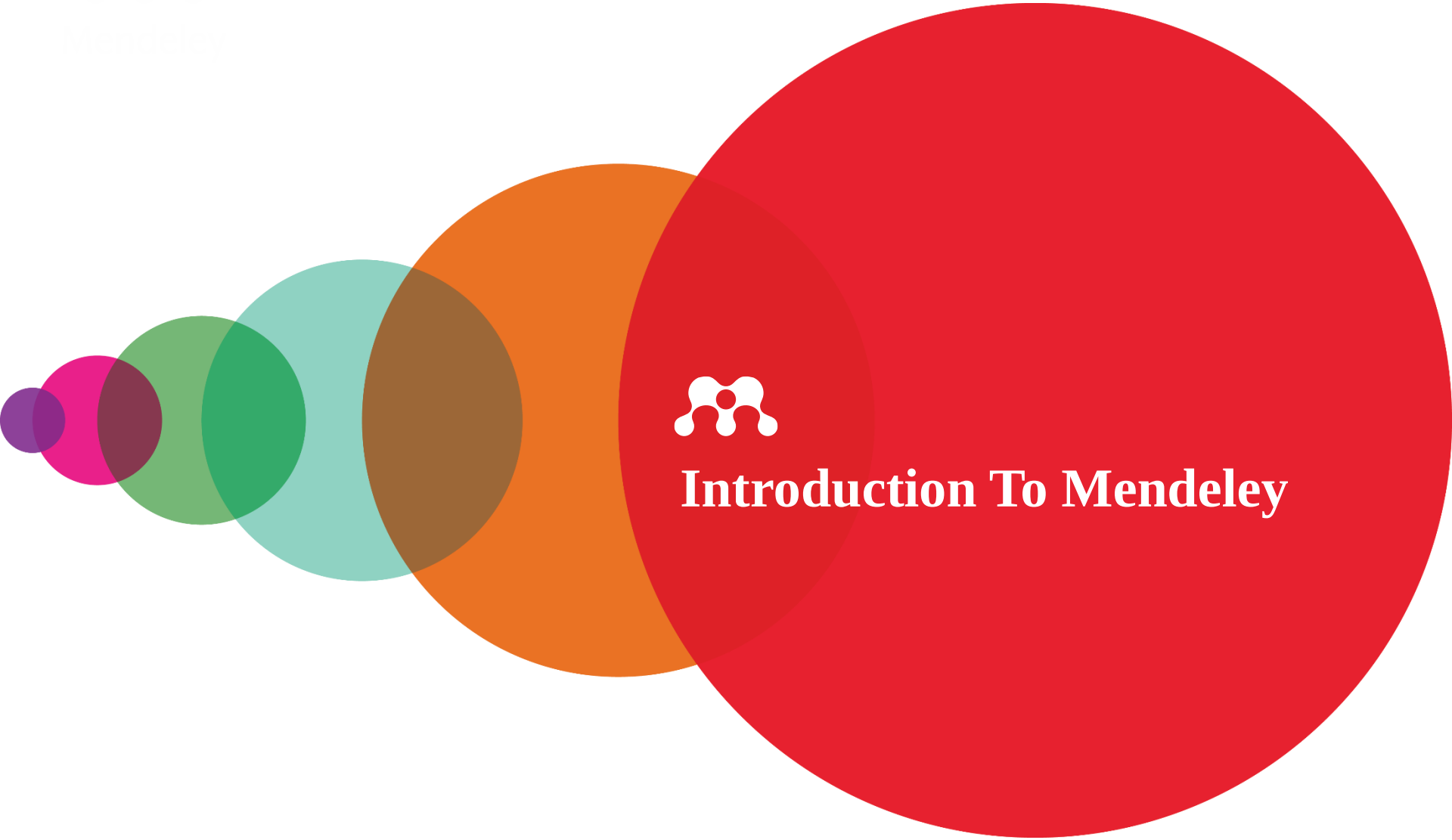
نسبة الاستلال 0%

اليوم الثالث

المصادر العلمية وكيفية الاشارة اليها

باستخدام برنامج

MENDELEY

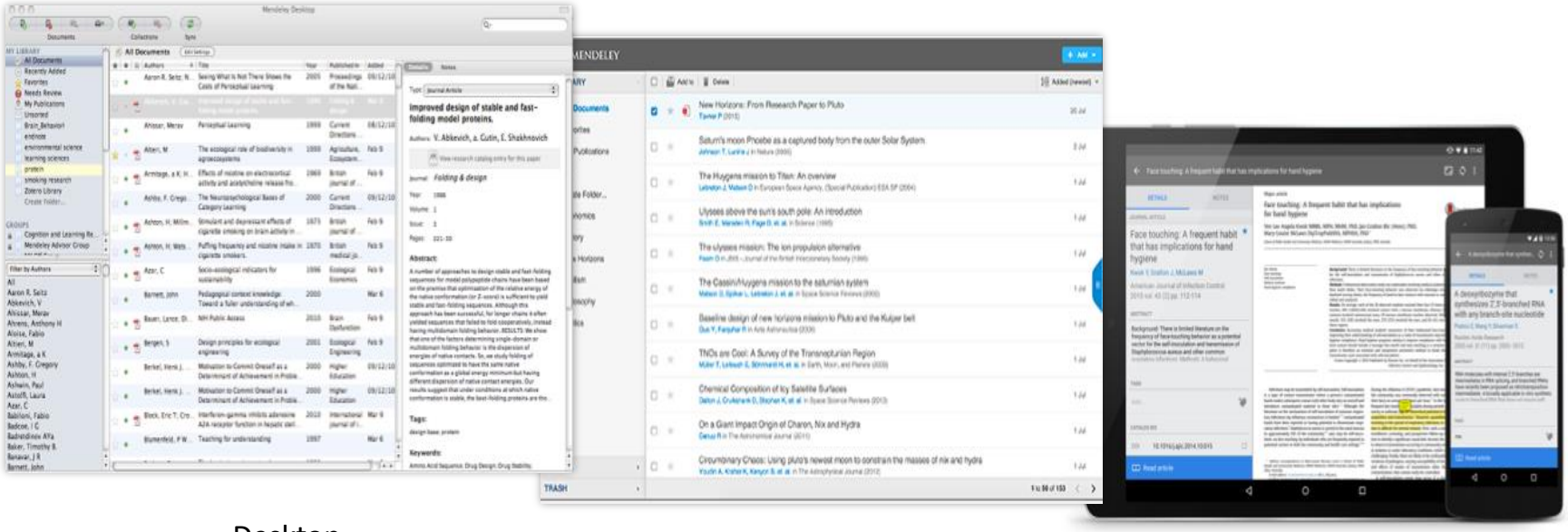


Introduction To Mendeley

ELSEVIER

So what is Mendeley?

- ***Mendeley*** is a reference manager and academic social network that can help you organize your research, collaborate with others online, and discover the latest research.

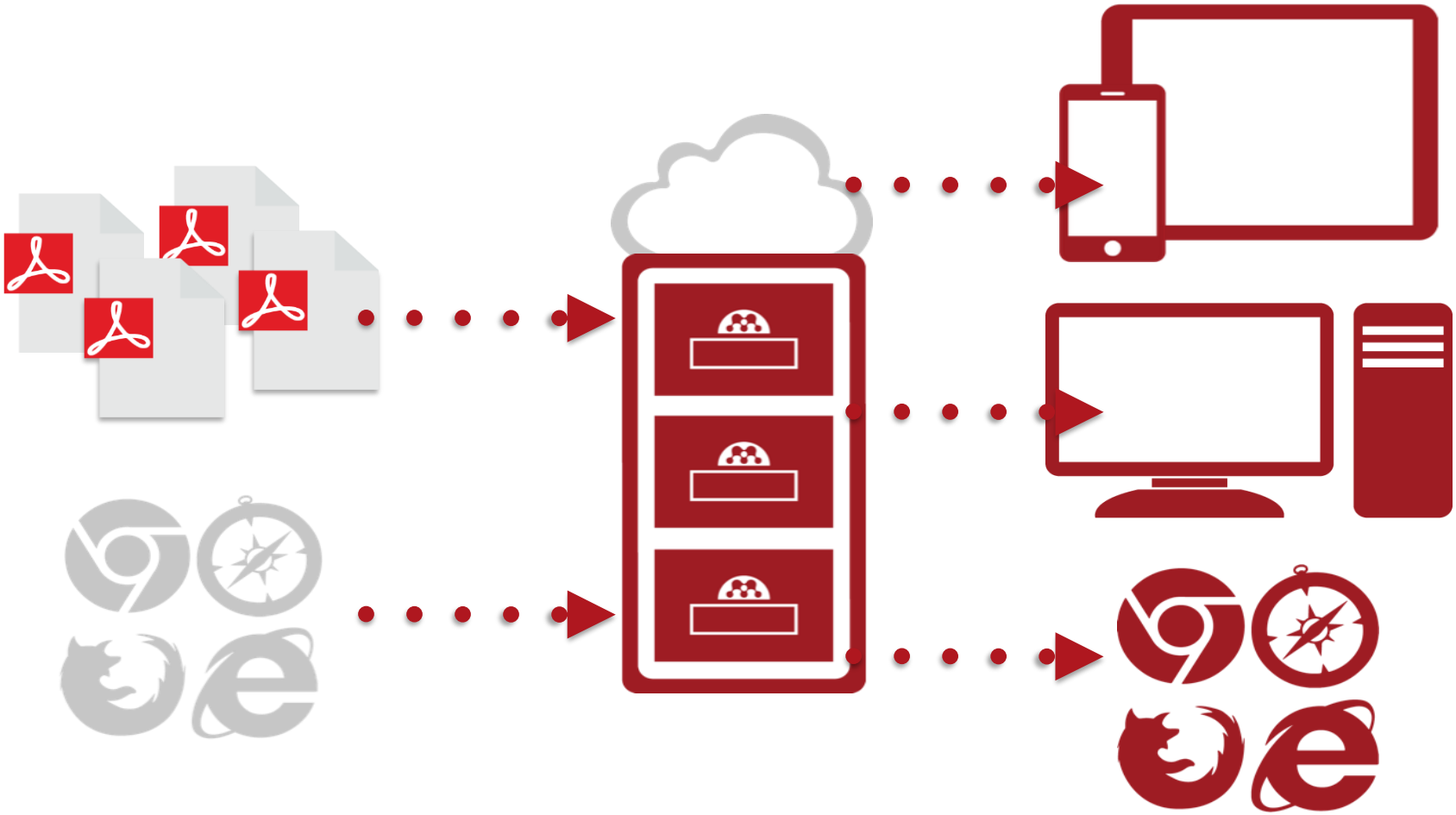


Desktop

Web

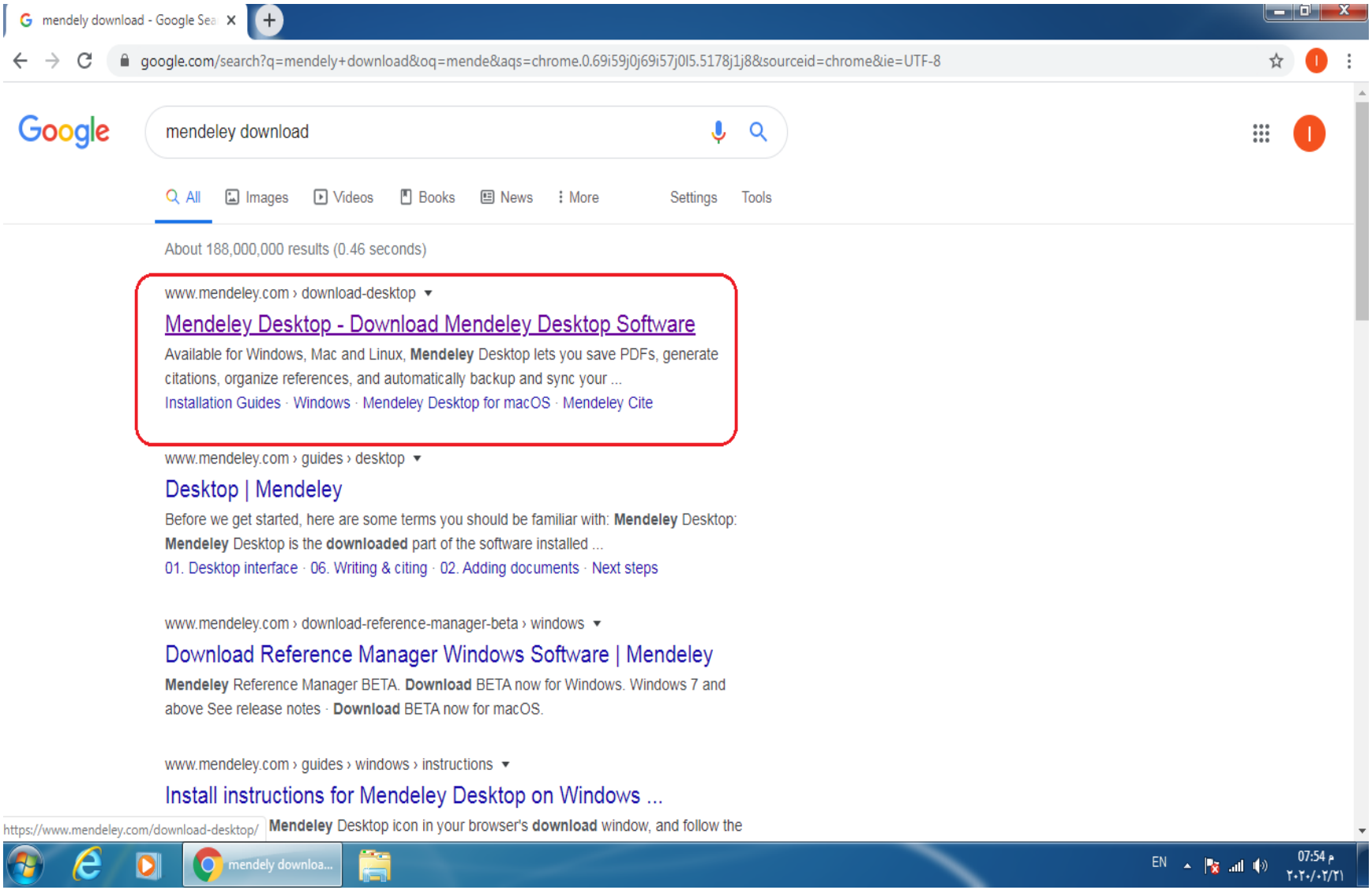
Mobile

How Does Mendeley Help?

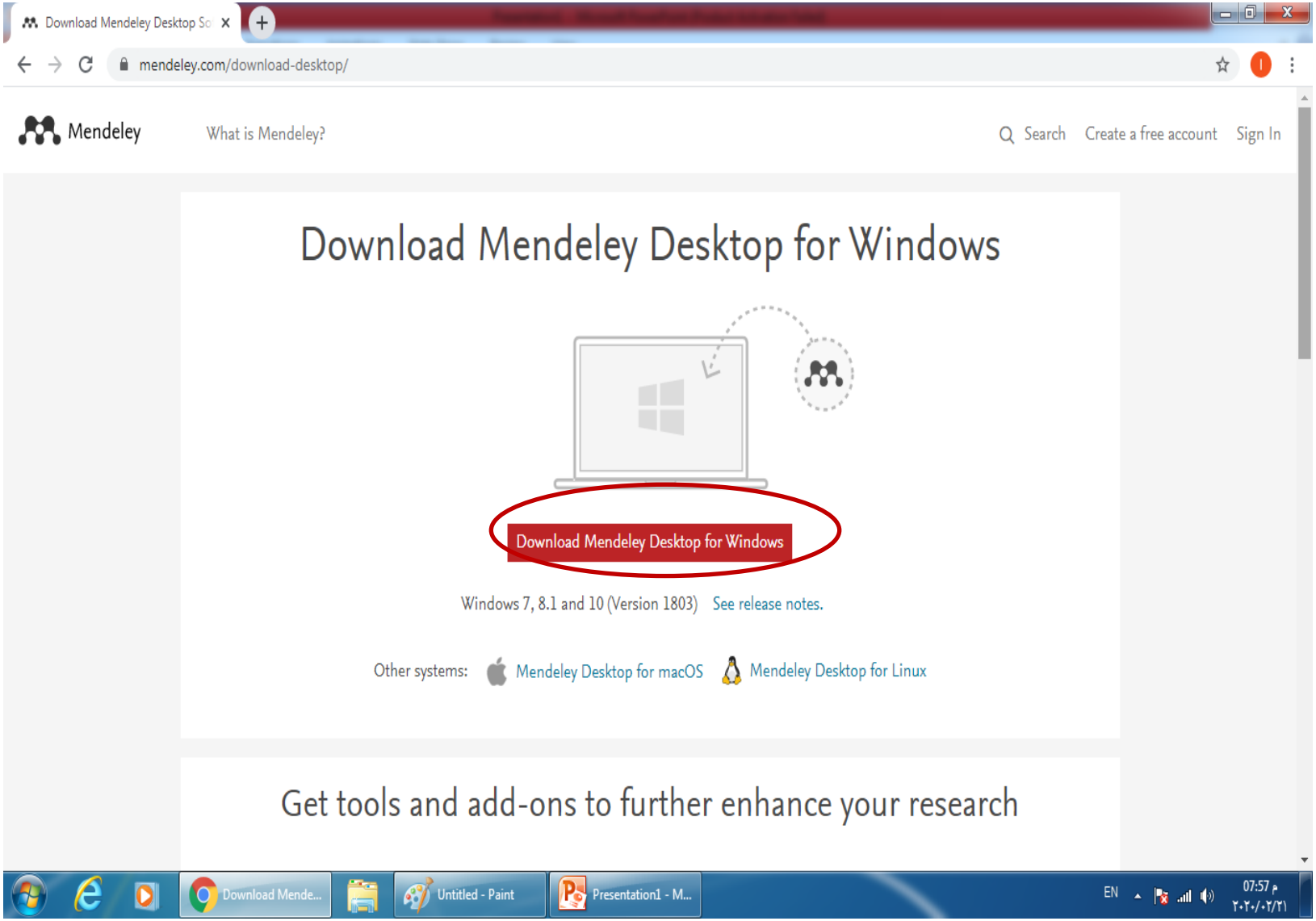


How to download Mendeley?

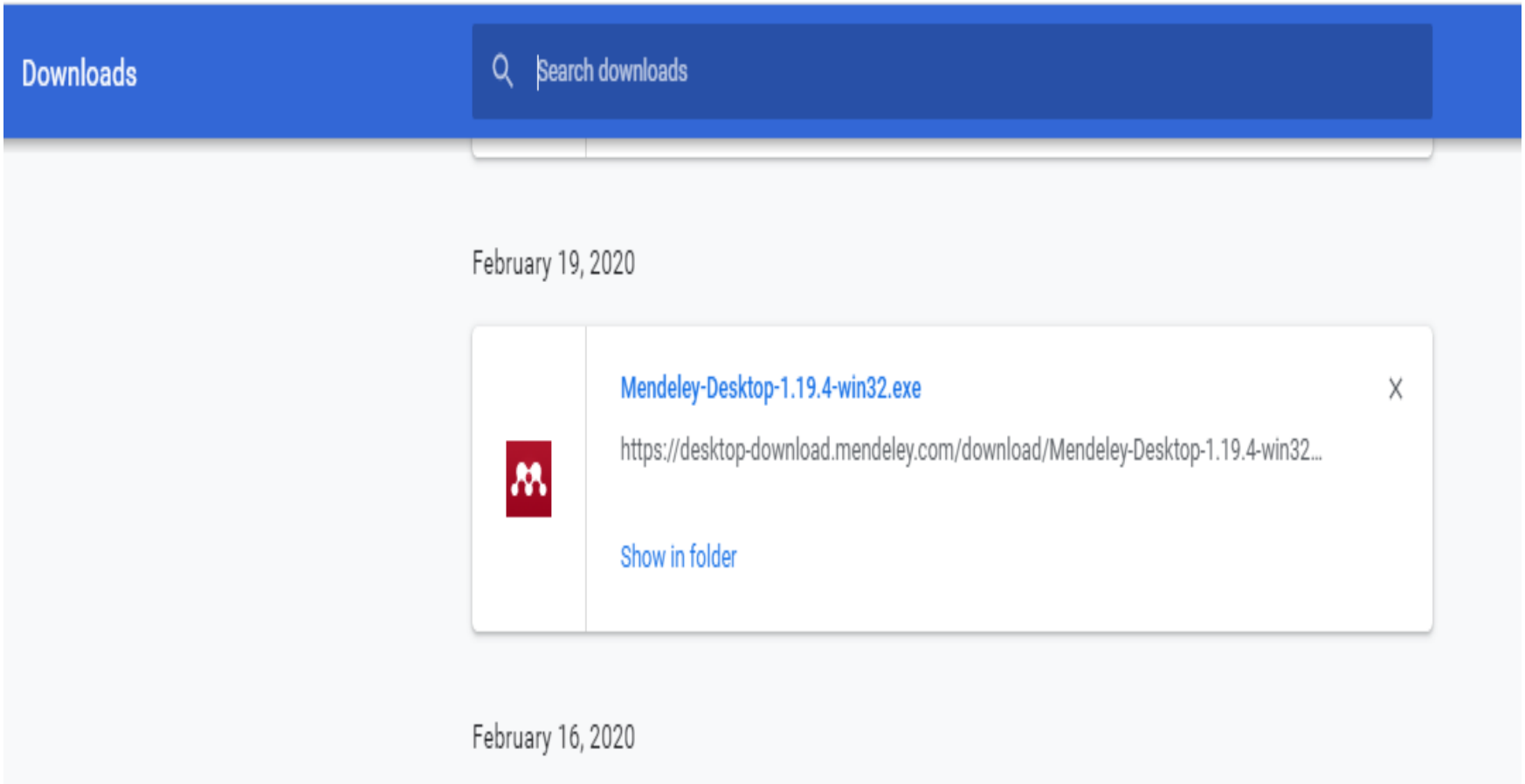
1. Type “Mendeley” onto google and click on the “download” hyperlink:



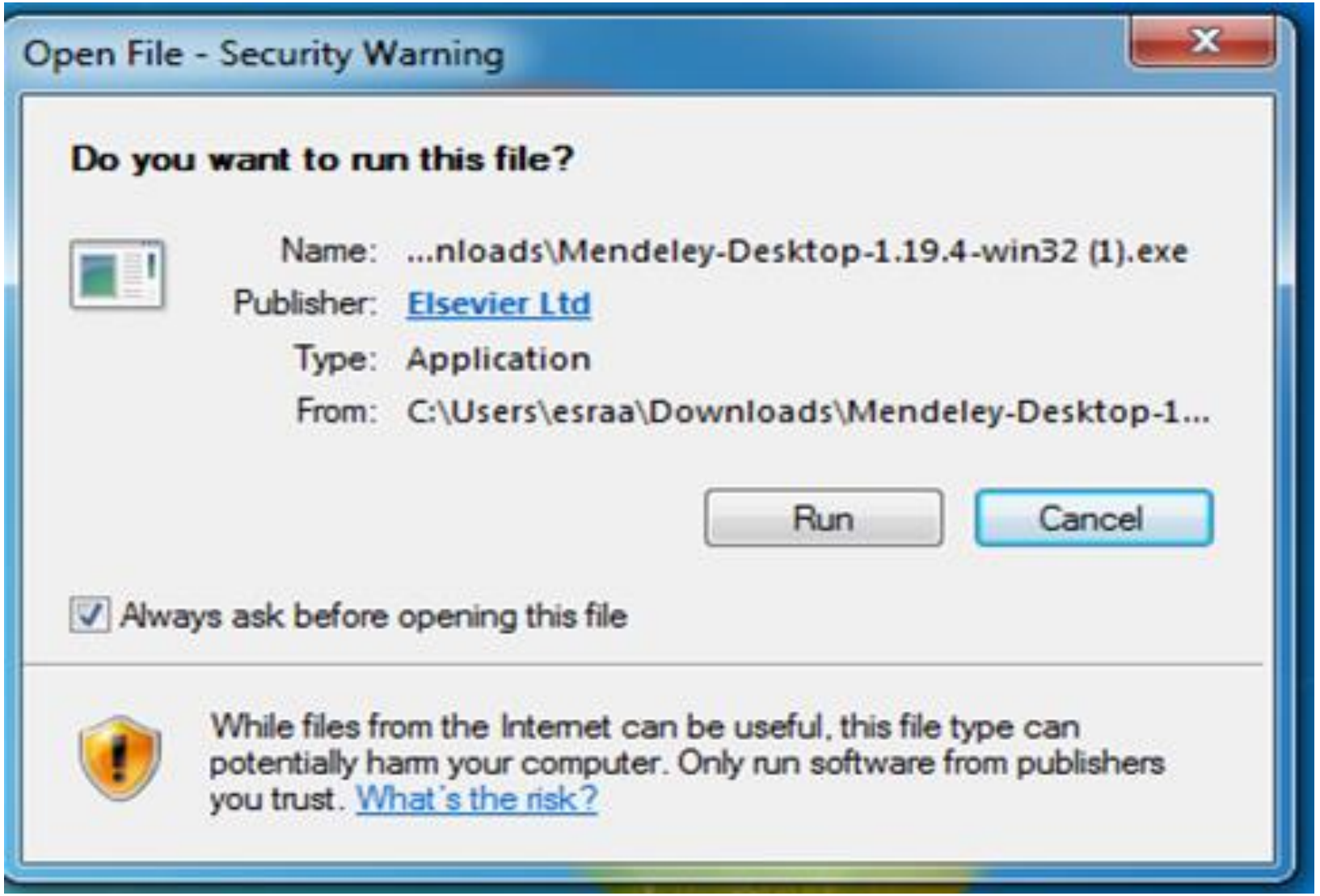
2. Click “download Mendeley desktop for windows”

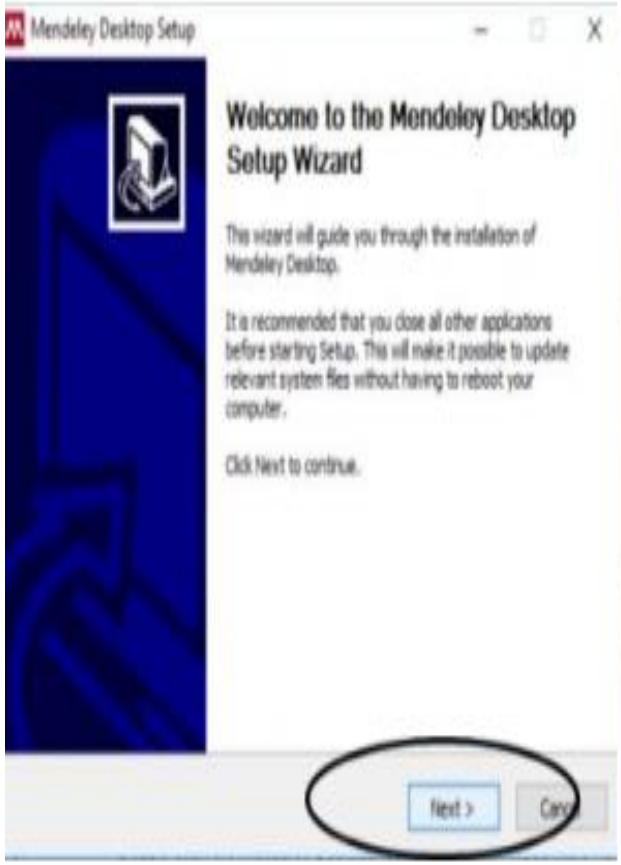


3- Go to the download of your browser and click on the download button. This opens a list of applications that you have downloaded from the internet. Click on the “Mendeley-Desktop-1.19.4-win32.exe”.



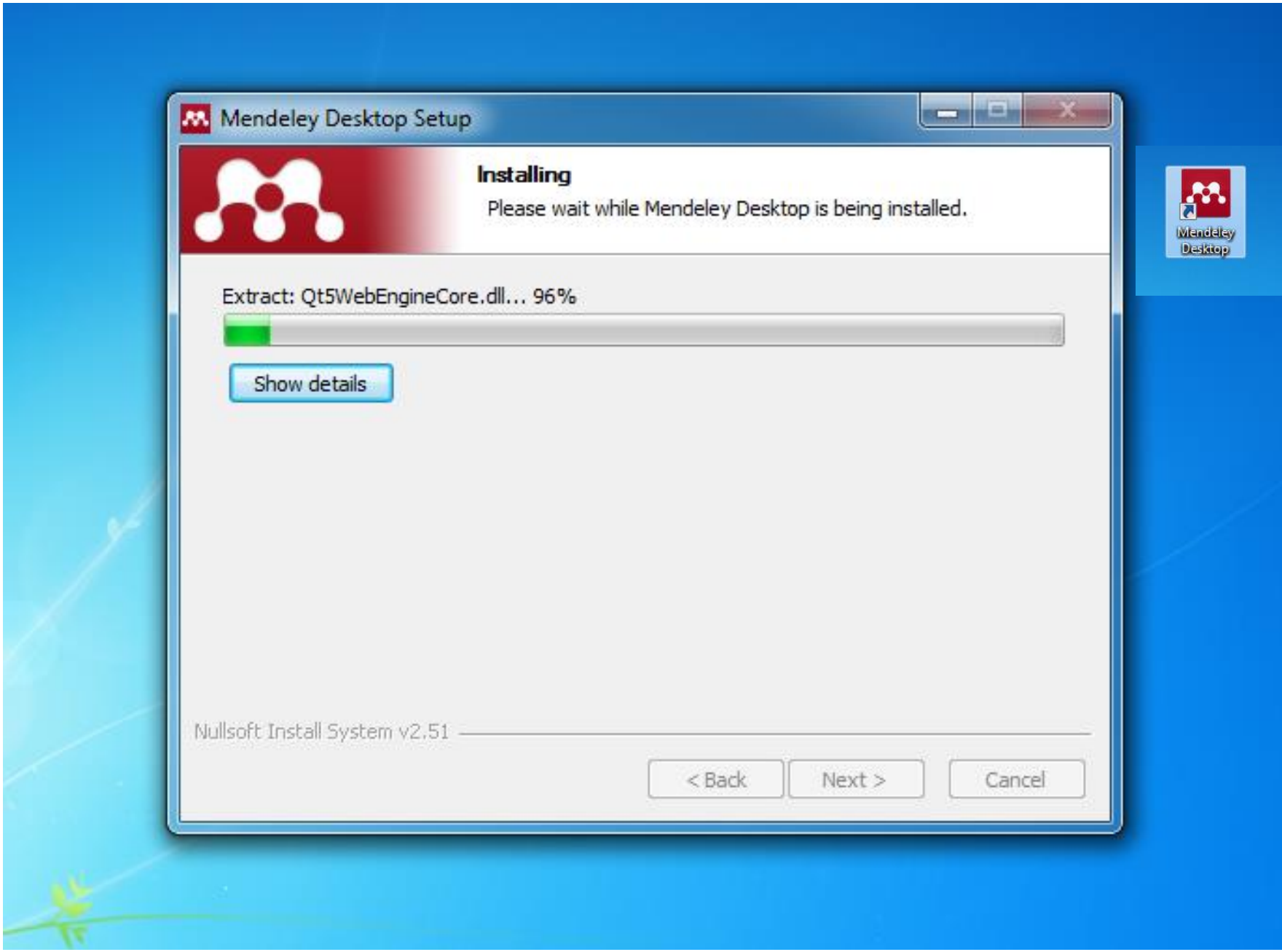
4- A pop-up appears on the monitor. Click “Run” which will lead to a Wizard Setup to also come up. If you follow the instructions, it’ll eventually allow you to install the application.




Mendeley Desktop Setup
Welcome to the Mendeley Desktop Setup Wizard
This wizard will guide you through the installation of Mendeley Desktop.
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
Next >
Cancel

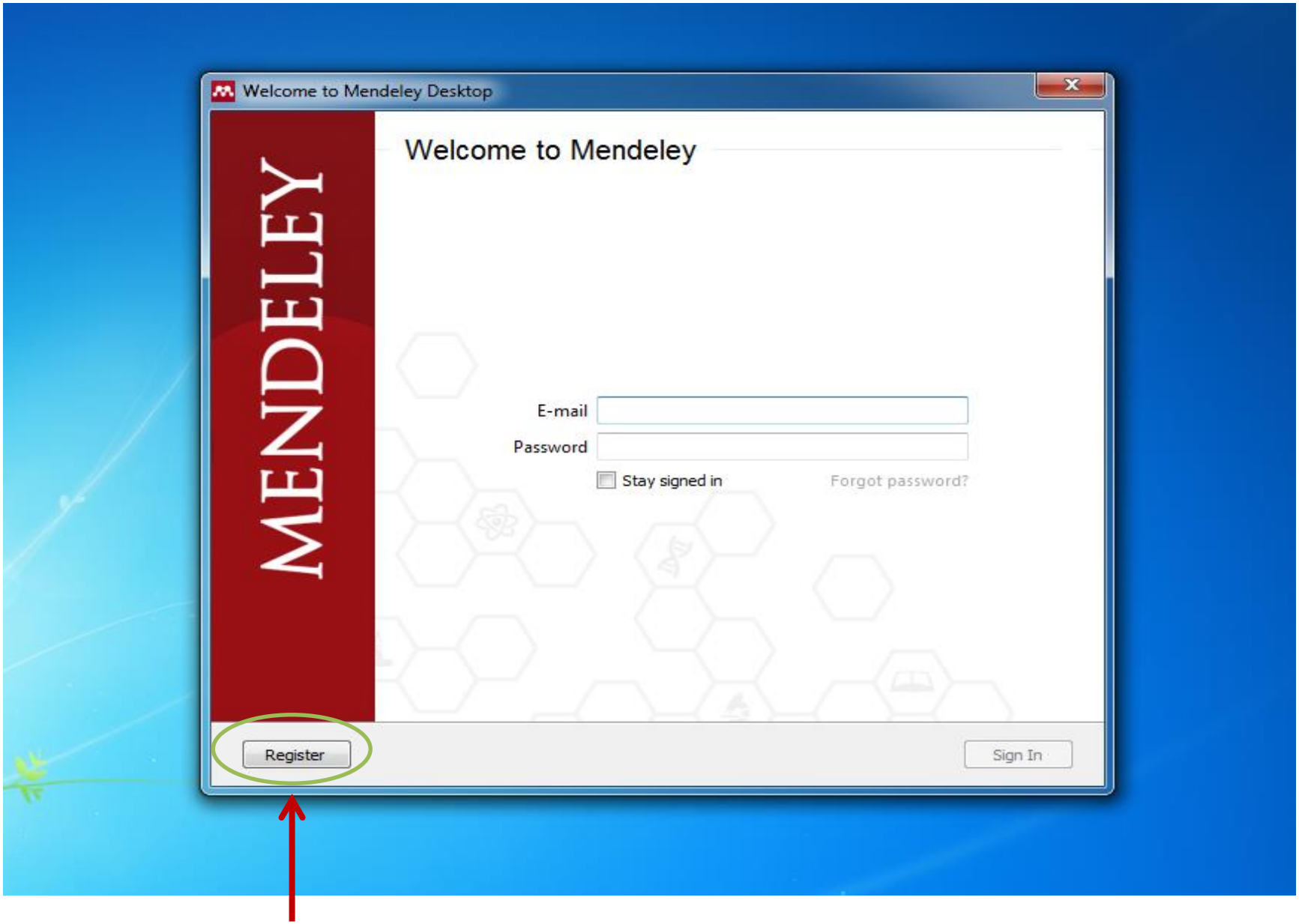

Mendeley Desktop Setup
License Agreement
Please review the license terms before installing Mendeley Desktop.
Press Page Down to see the rest of the agreement.
MENDELEY PRINCIPLES
Our mission is to help you manage and share your research data as you choose. You may wish to keep private your account profile details and what you are currently researching or reading, or you may wish to share your research activities or comments with selected colleagues or the entire Mendeley community. You decide what to share and with whom.
We recognize that protecting user privacy and confidentiality is essential to open inquiry. We are committed to respecting your privacy in your research. Please read this privacy policy carefully to understand our practices regarding your personal data and how we will treat it.
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install Mendeley Desktop.
< Back
I Agree
Cancel


Mendeley Desktop Setup
Choose Install Location
Choose the folder in which to install Mendeley Desktop.
Setup will install Mendeley Desktop in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.
Destination Folder
Browse...
Space required: 182.6MB
Space available: 2.9GB
< Back
Next >
Cancel

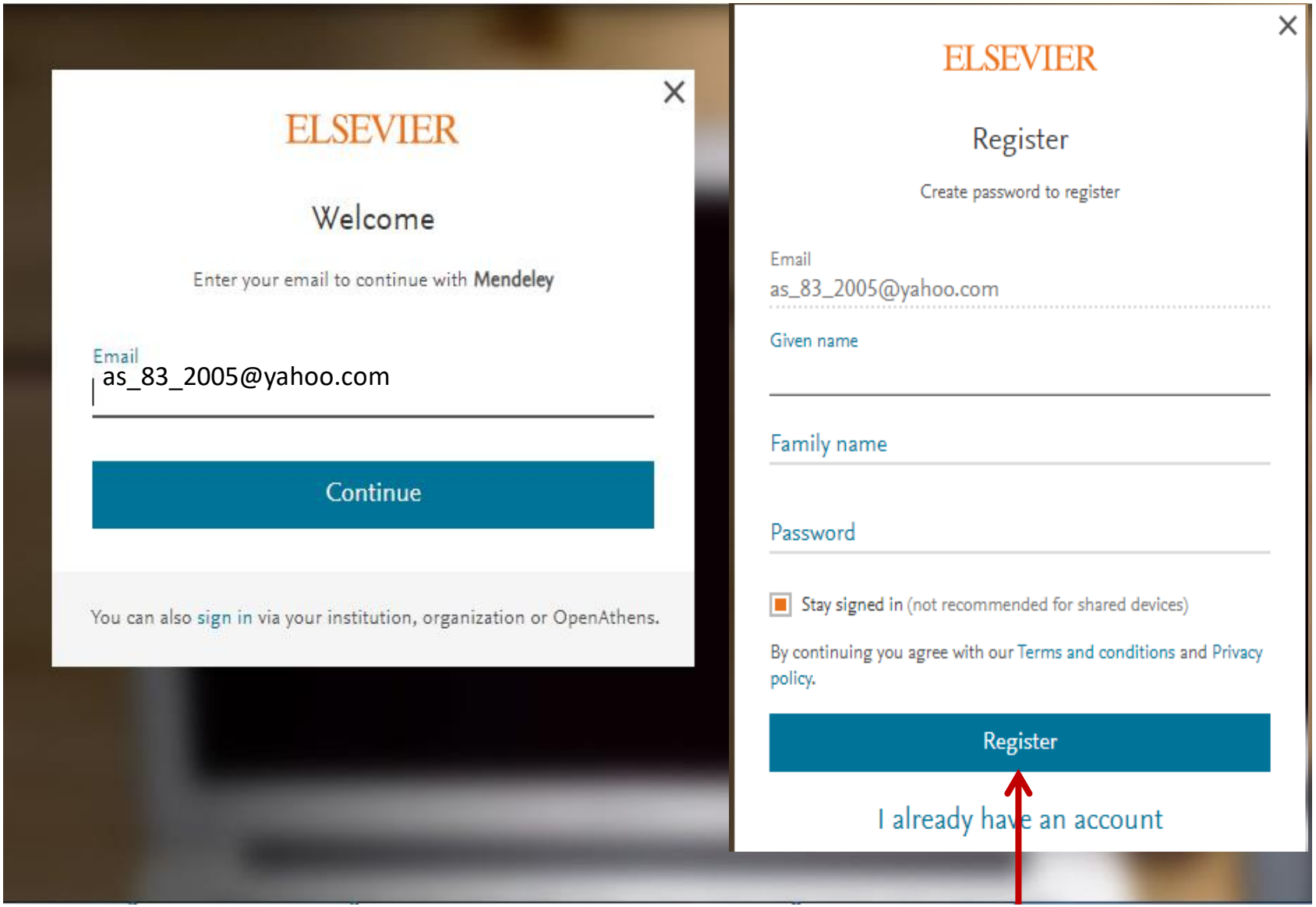

Mendeley Desktop Setup
Installing
Please wait while Mendeley Desktop is being installed.
Extract: Qt5WebEngineCore.dll... 96%
Show details
Nullsoft Install System v2.51
< Back
Next >
Cancel
Mendeley Desktop

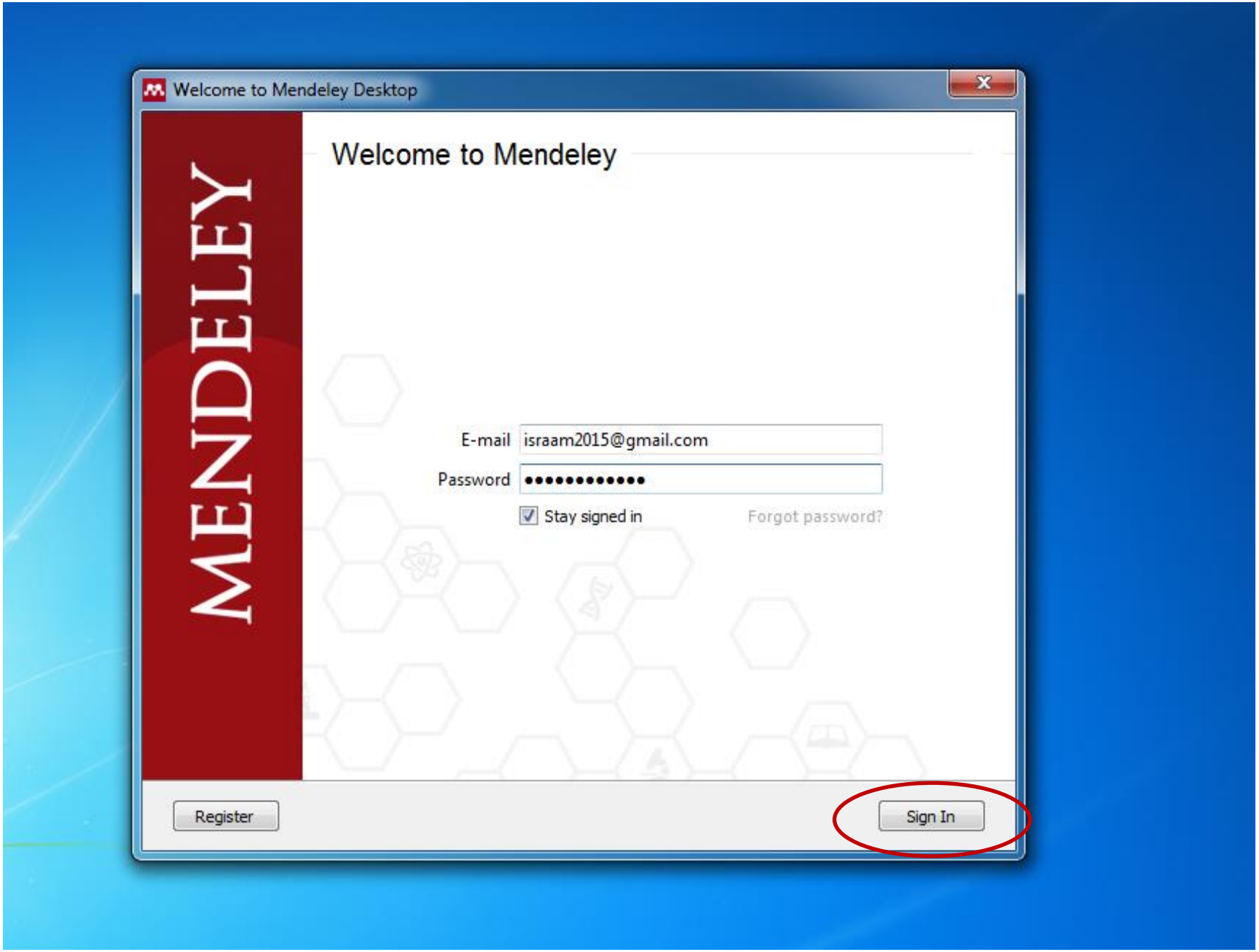
Overview:
Using Mendeley

- The first thing you'll need to do is to create an account via mendeley.com

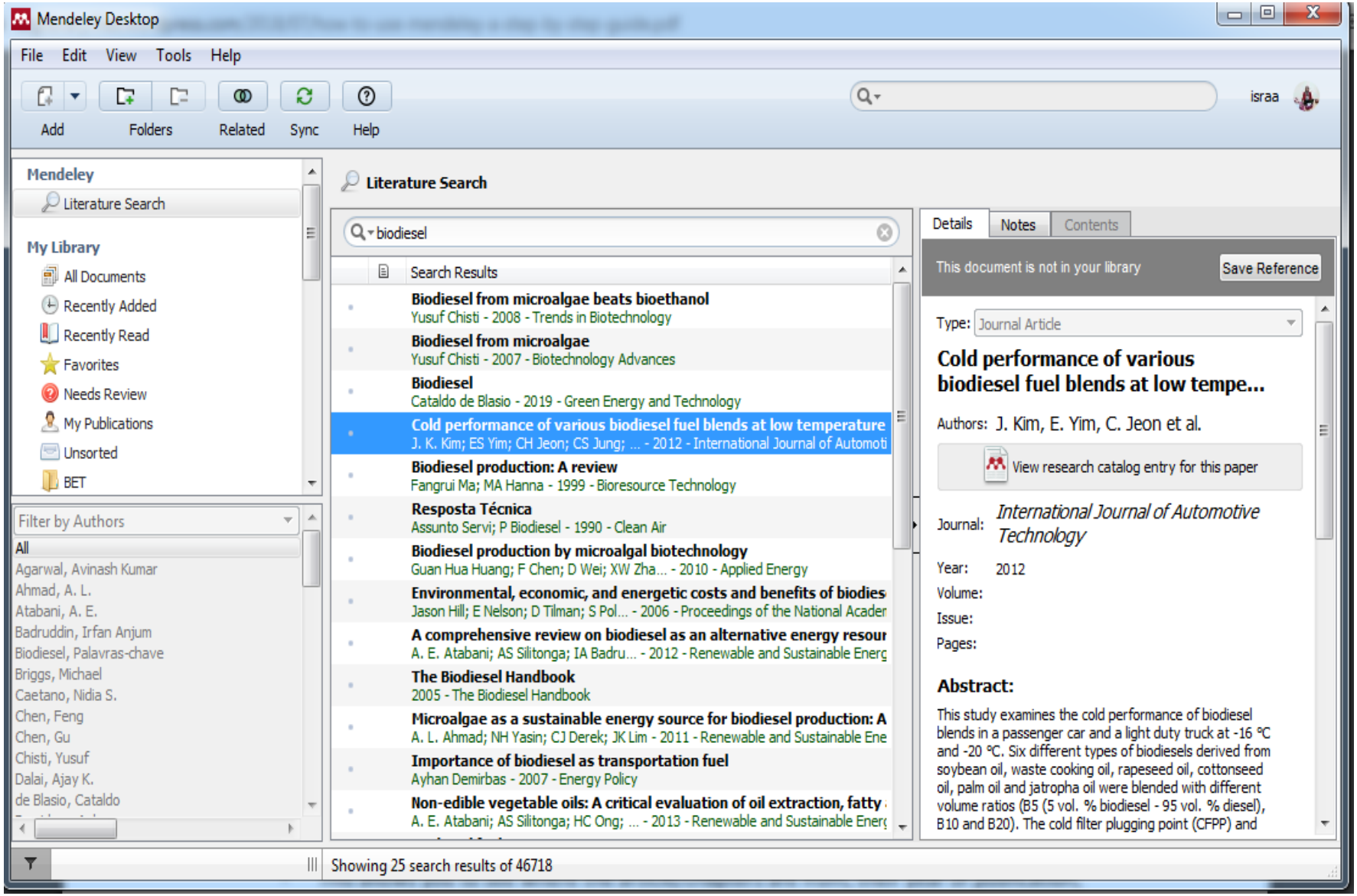


Mendeley

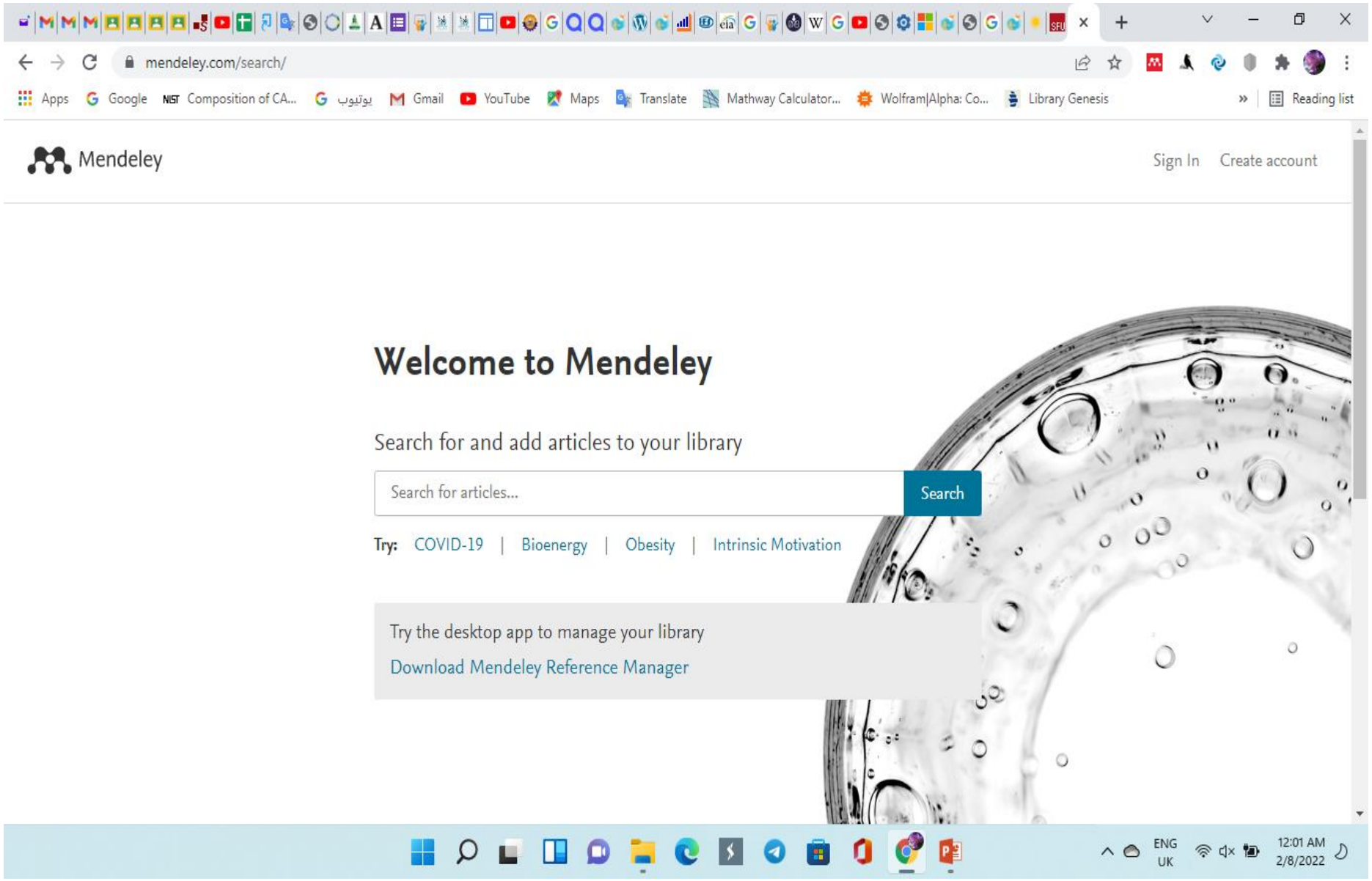

ELSEVIER
Welcome
Enter your email to continue with Mendeley
Email
as_83_2005@yahoo.com
Continue
You can also sign in via your institution, organization or OpenAthens.
ELSEVIER
Register
Create password to register
Email
as_83_2005@yahoo.com
Given name
Family name
Password
Stay signed in (not recommended for shared devices)
By continuing you agree with our Terms and conditions and Privacy policy.
Register
I already have an account


Welcome to Mendeley Desktop
MENDELEY
Welcome to Mendeley
E-mail
israam2015@gmail.com
Password
Stay signed in
Forgot password?
Register
Sign In

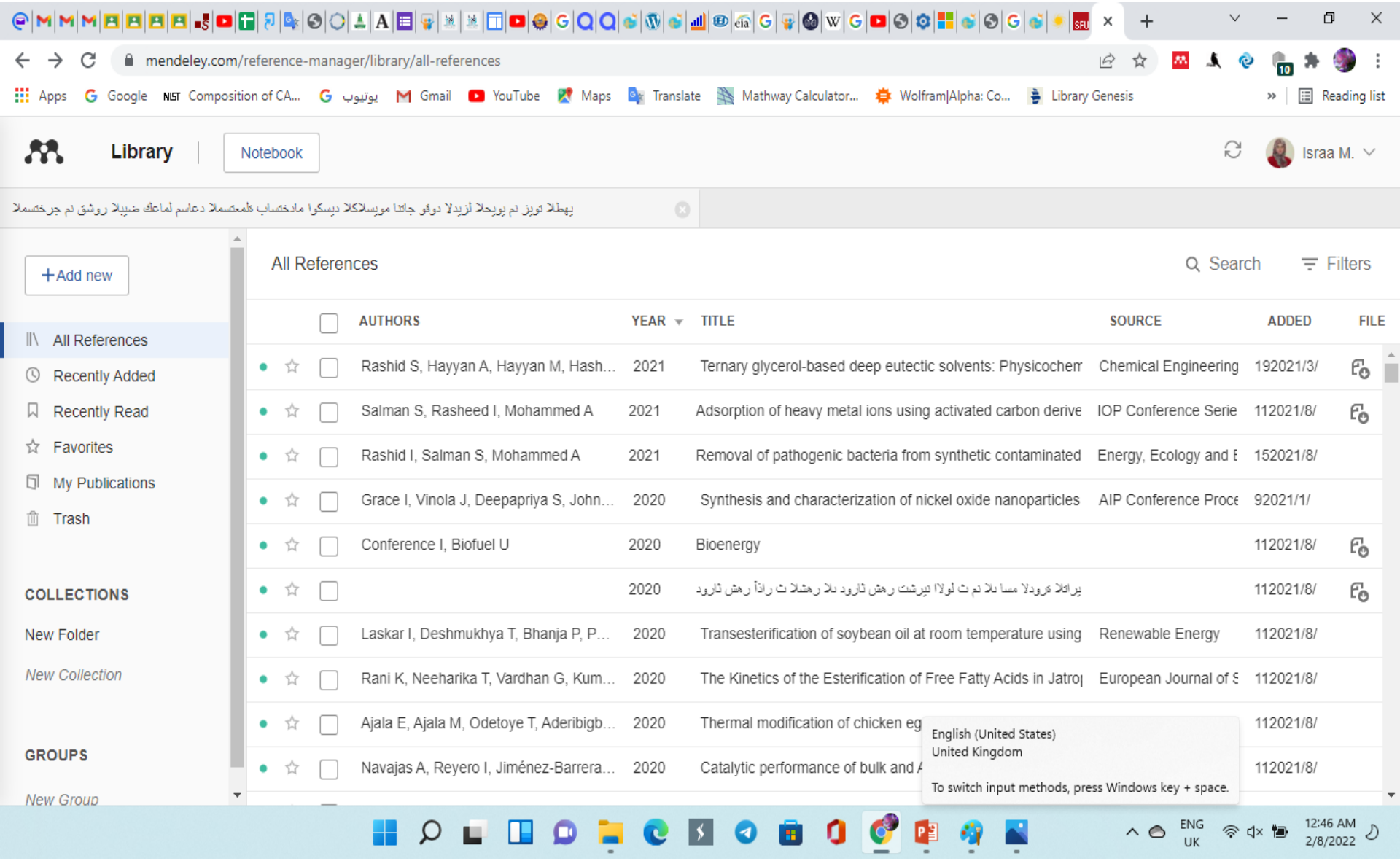
- The application will look like this when you open it: Mendeley Desktop



Mendeley Web

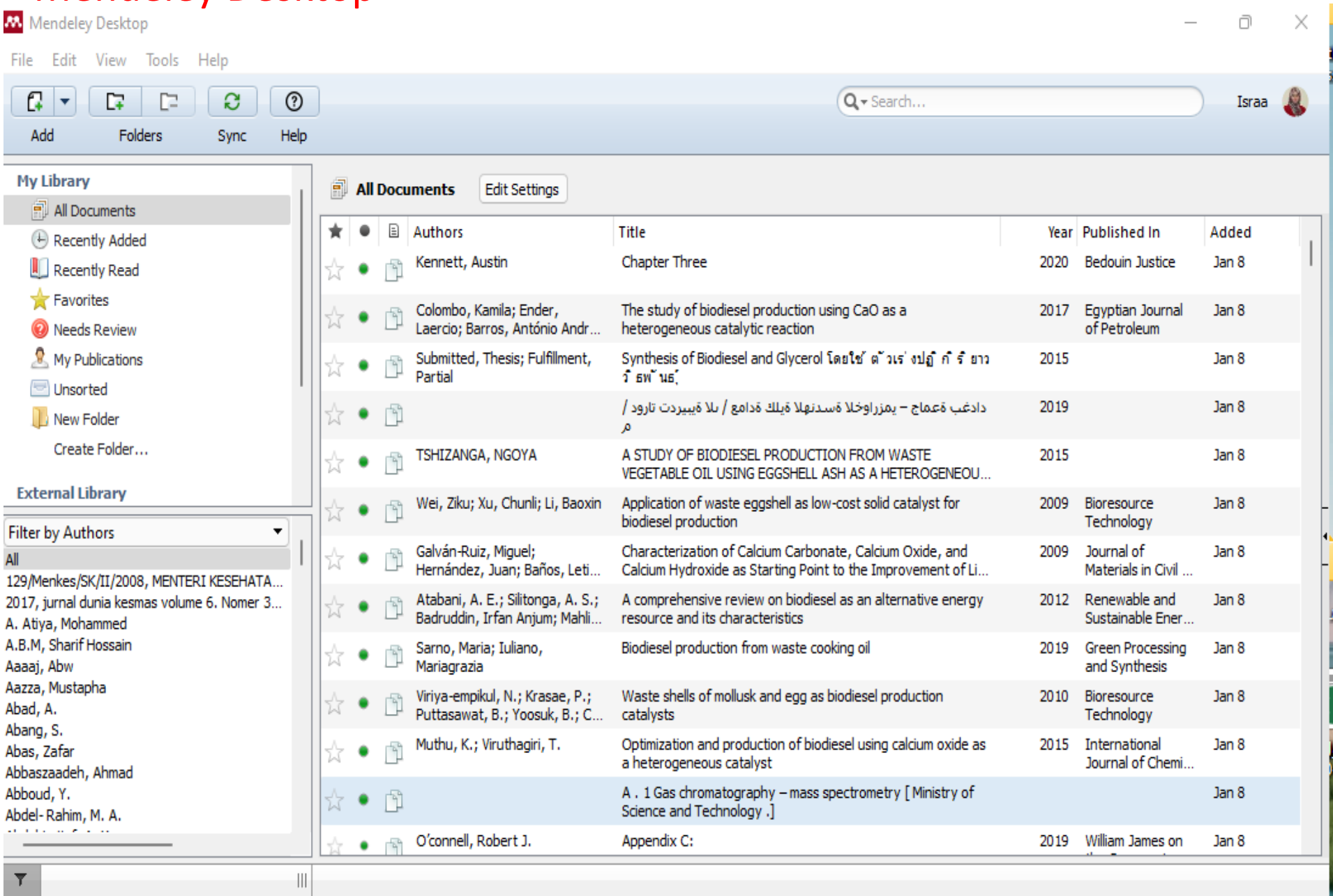


Mendeley Web



Organize:
Setting Up A Library

Mendeley Desktop



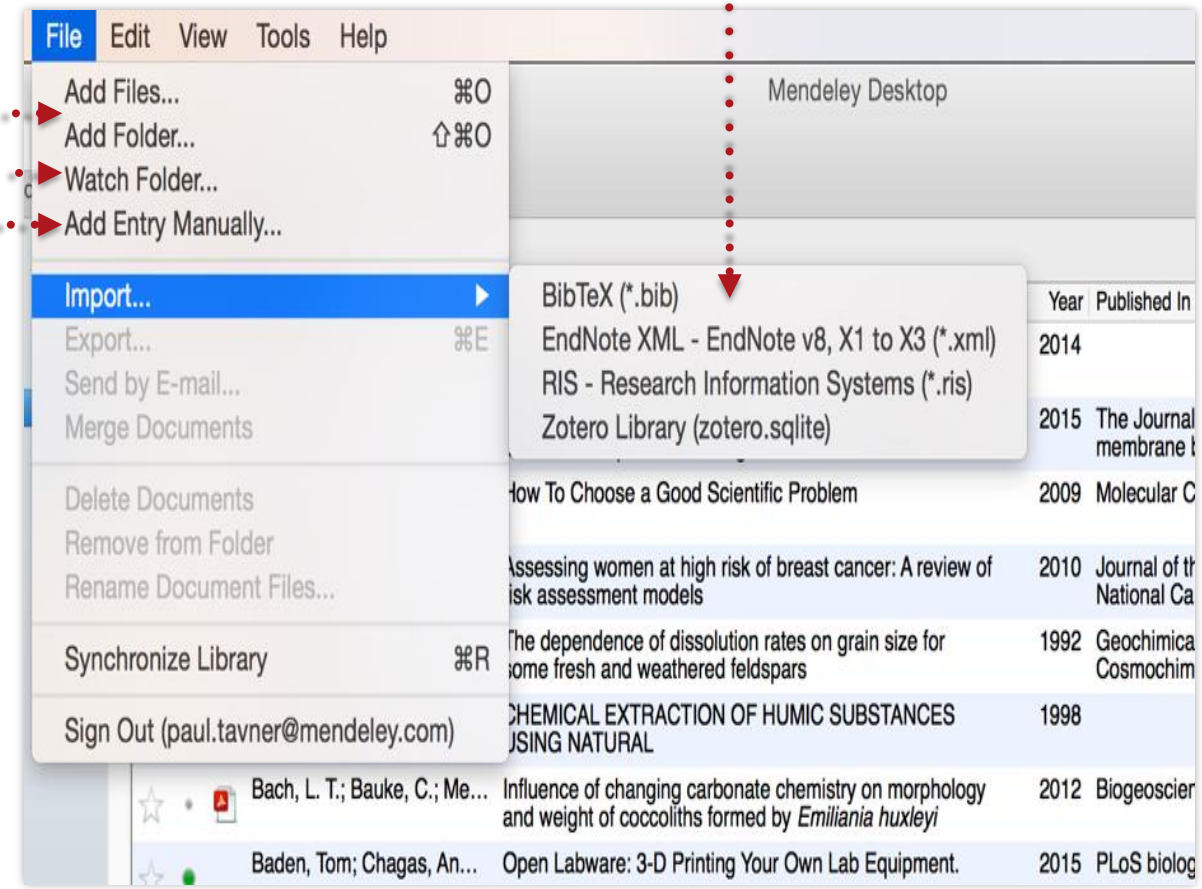
Adding Documents

Select a file or folder to add from your computer

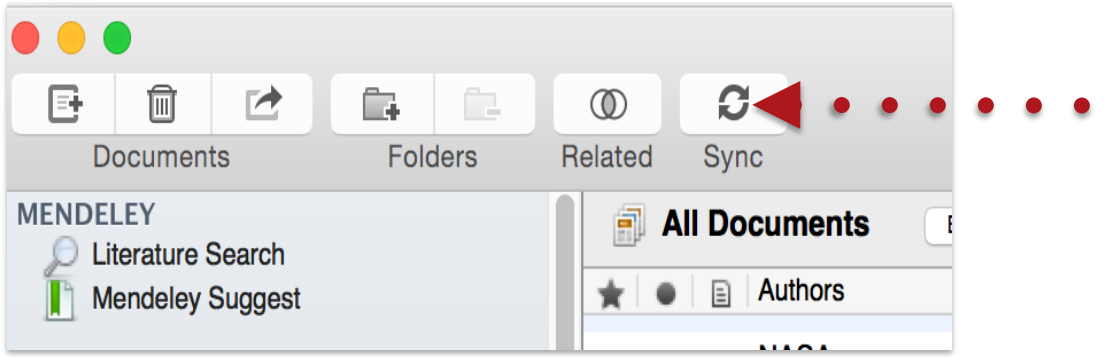
Import from another reference manager, or BibTeX

Watch a folder

Add reference by manually entering details



Sync


Documents
Folders
Related
Sync
MENDELEY
Literature Search
Mendeley Suggest
All Documents
Authors

Organize:
Managing Your Library

Manage Your Library

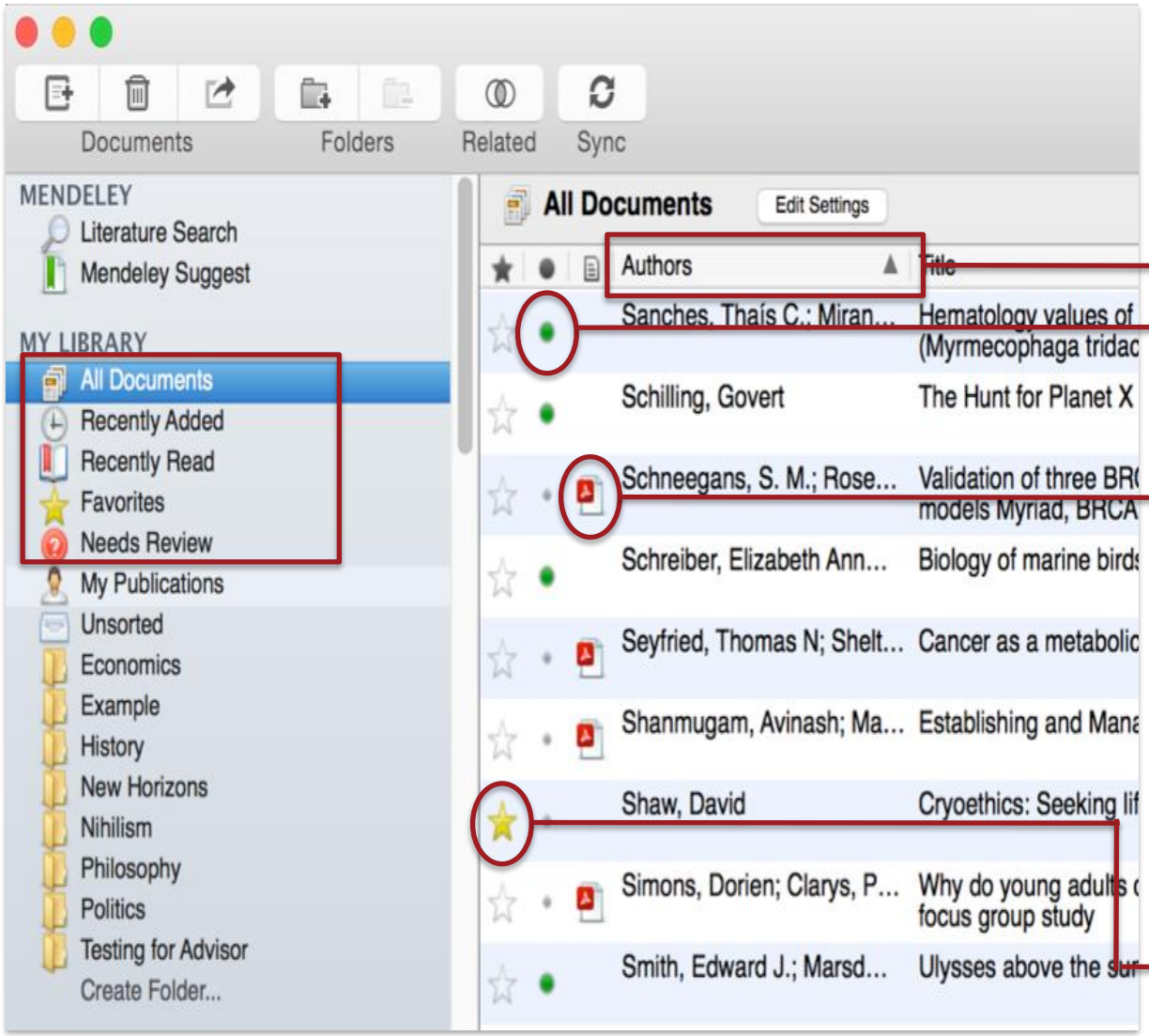
All items in your personal library

Items added in the last two weeks

Access your recently read items

All items you've starred in your library

Items in need of review



Use column headings to order your references

Mark entries read or unread

Entries with attached PDFs can be opened with the PDF Reader

Star items to mark them as favorites

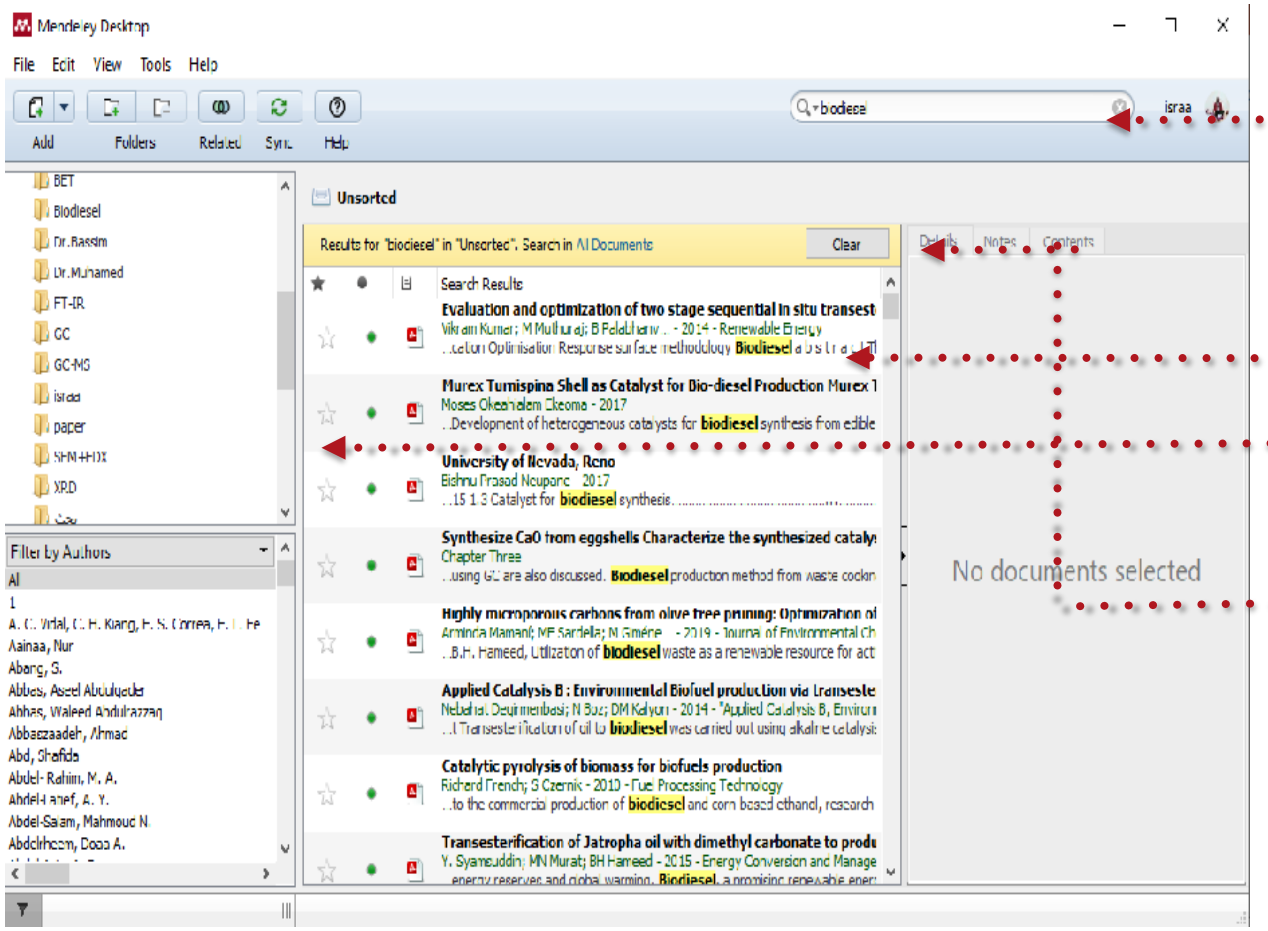
Create and Use Folders

References not added to a folder will appear in 'unsorted'

Your folders will be listed below. Drag and drop to re-order them.

Use 'Create Folder' to enter a new folder name.

Search Your Documents



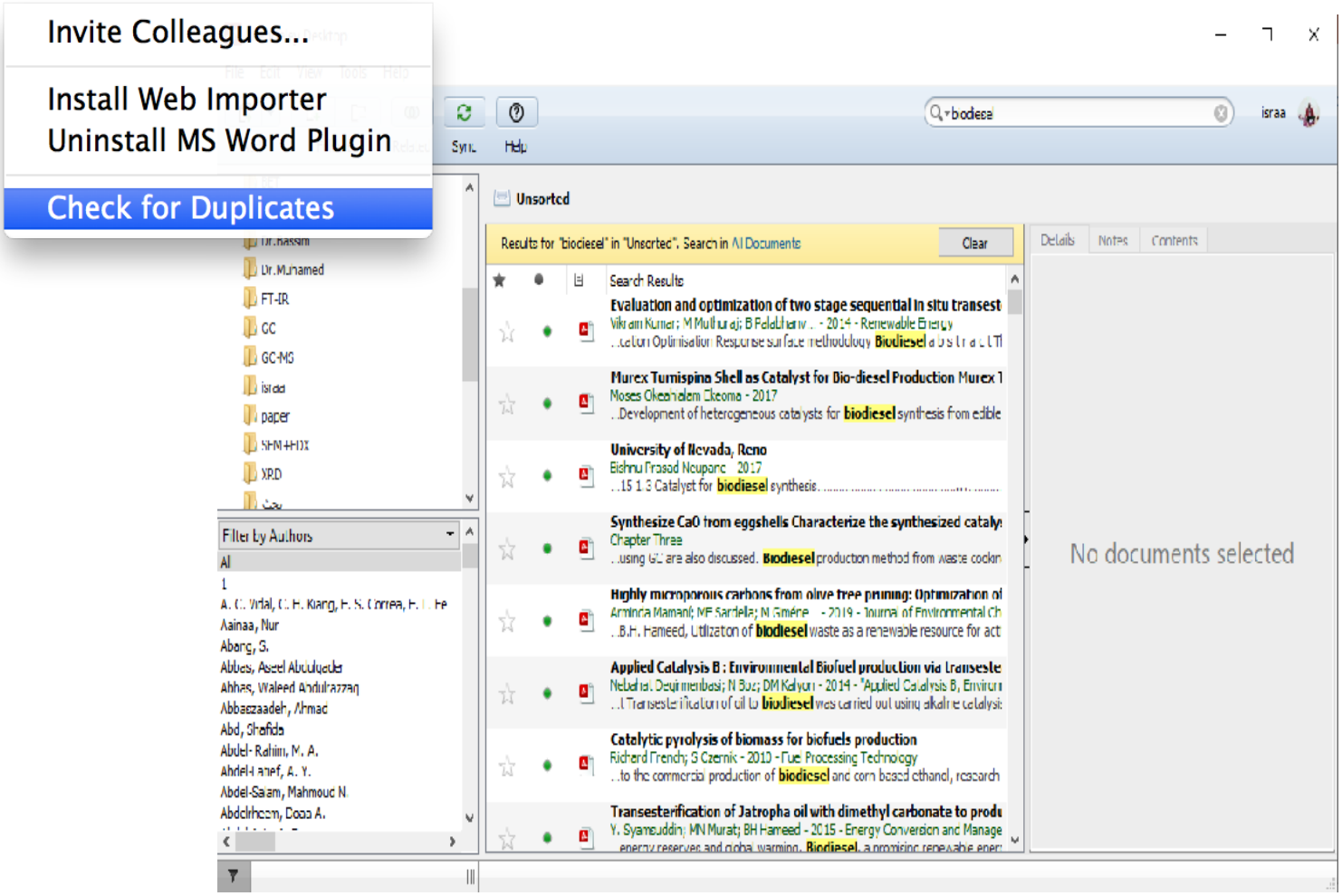
Enter your search term in the search field

The main view will be filtered accordingly

Click on a specific folder to search within it

Use the clear button to remove the search filter

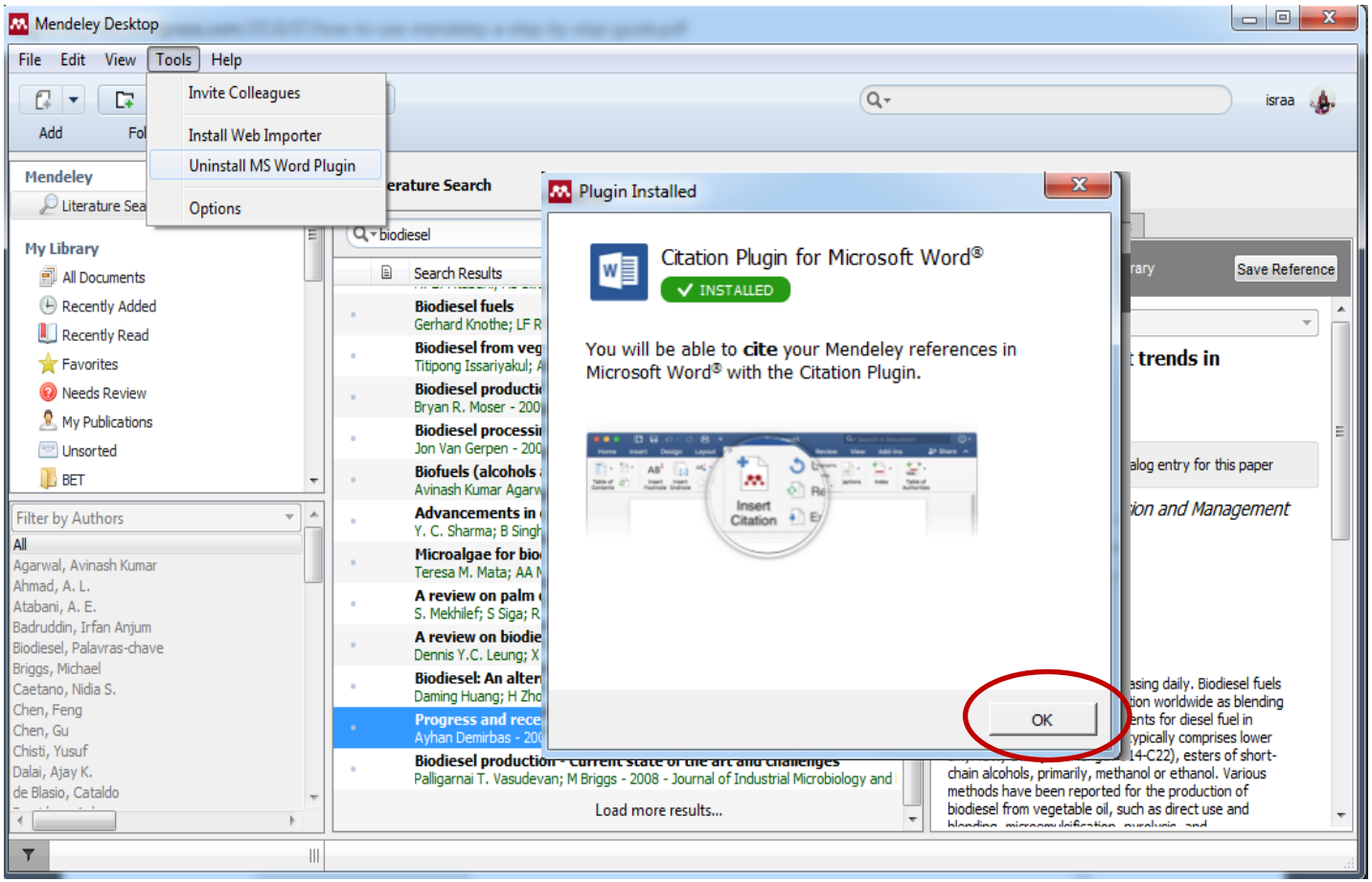
Checking for Duplicates



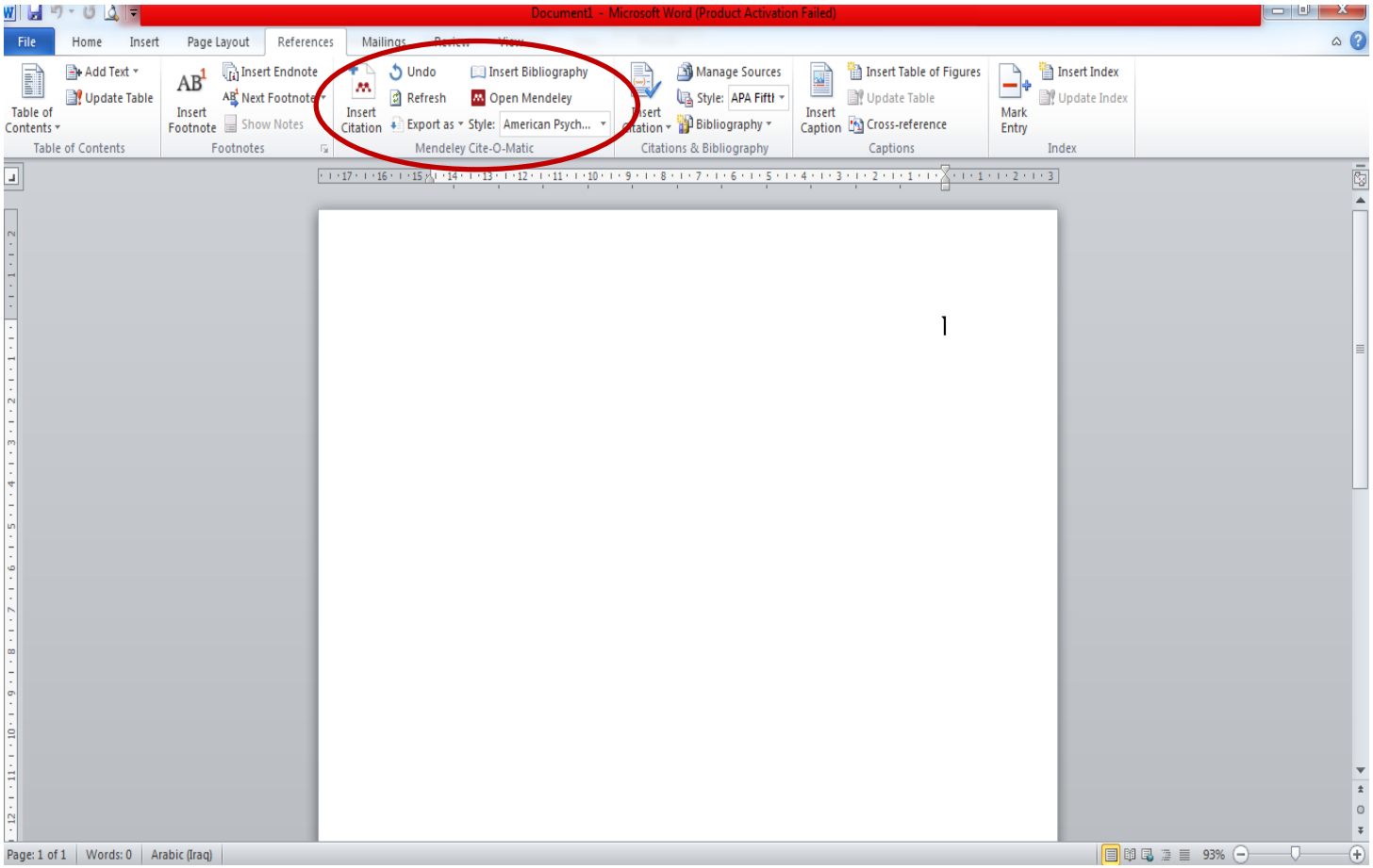
Cite:
Using the Mendeley Citation Plug-In

How to reference/Cite on Mendeley

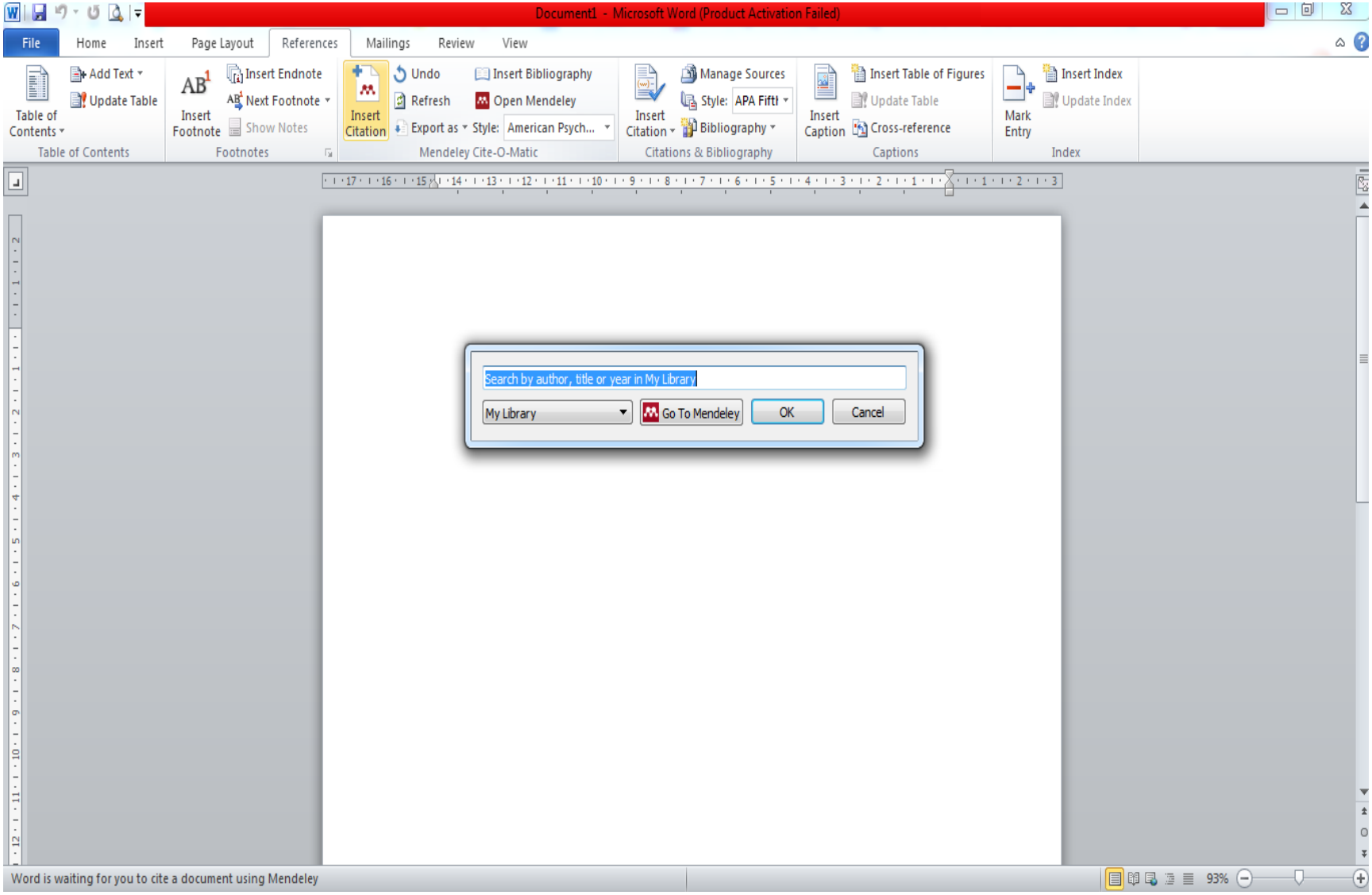
1 - Click on “tools” of the application and select the option “install WS word Plugin”



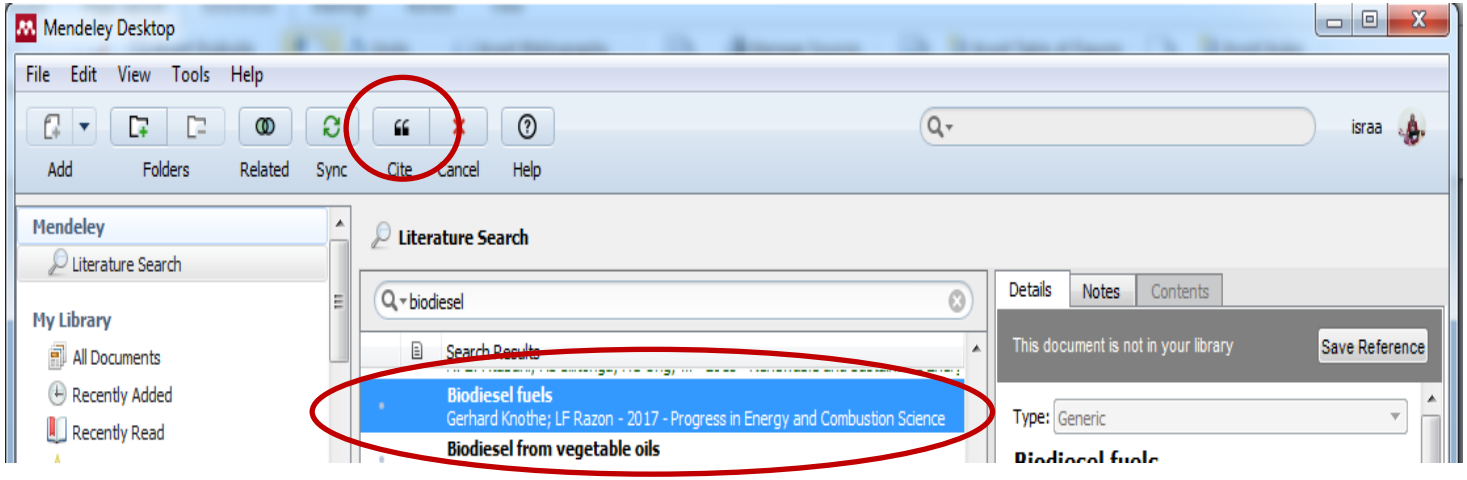
2- Open your document on Word. Select “reference” – directly under it, you’ll see “insert citation”



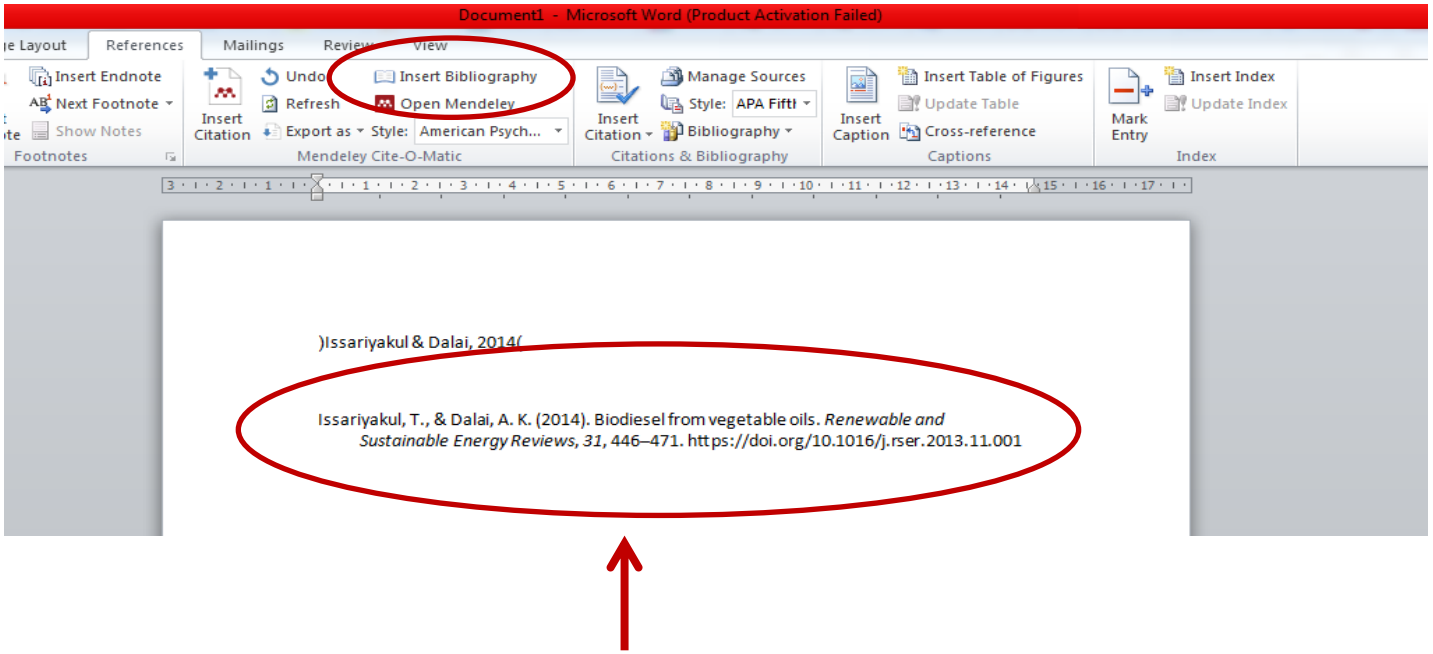
3- When you want to cite, select “insert citation” and a pop up will appear. Click on “Go to Mendeley”:



4- This will open your “library” of saved references on your Mendeley application. Click on the relevant document and select “Cite” – this will transfer the citation directly onto your word document.



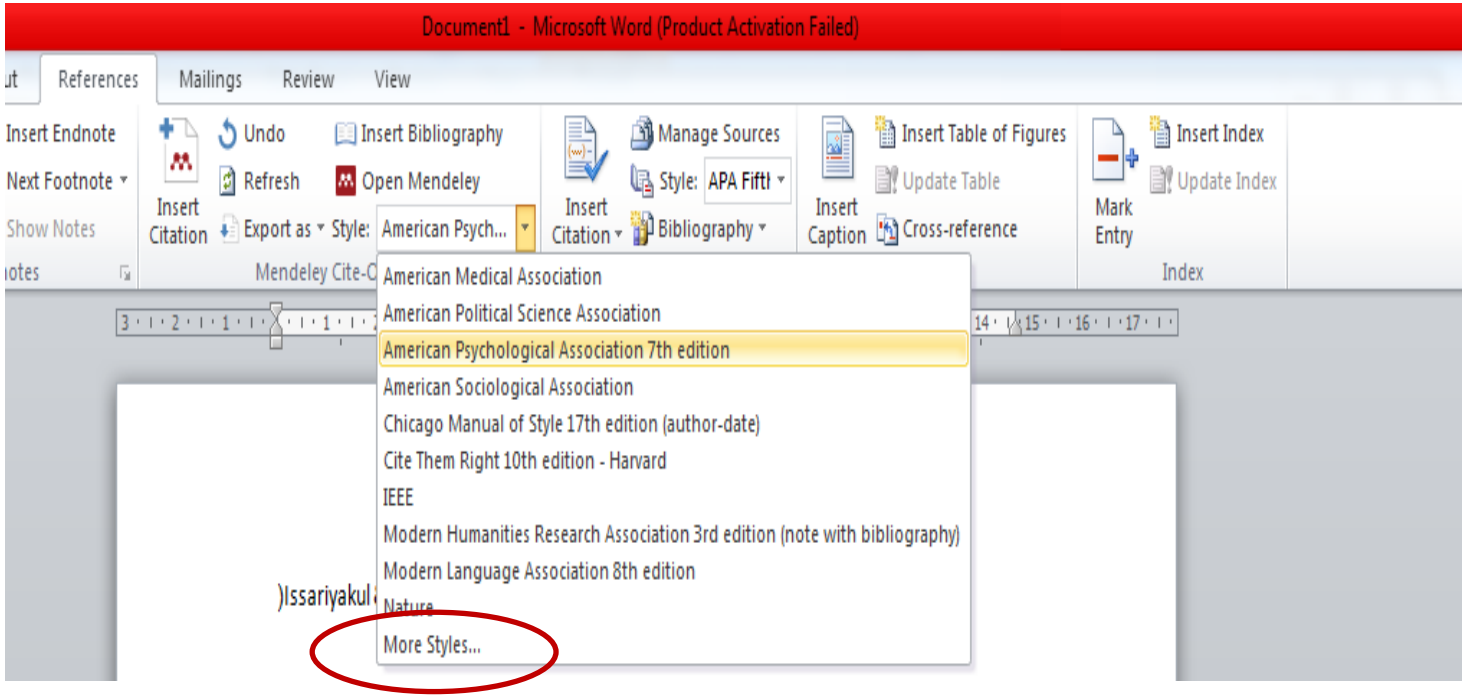
5- Once you have completed your work on the document, you can insert a bibliography simply by clicking on “insert bibliography” under “references” on the toolbar.

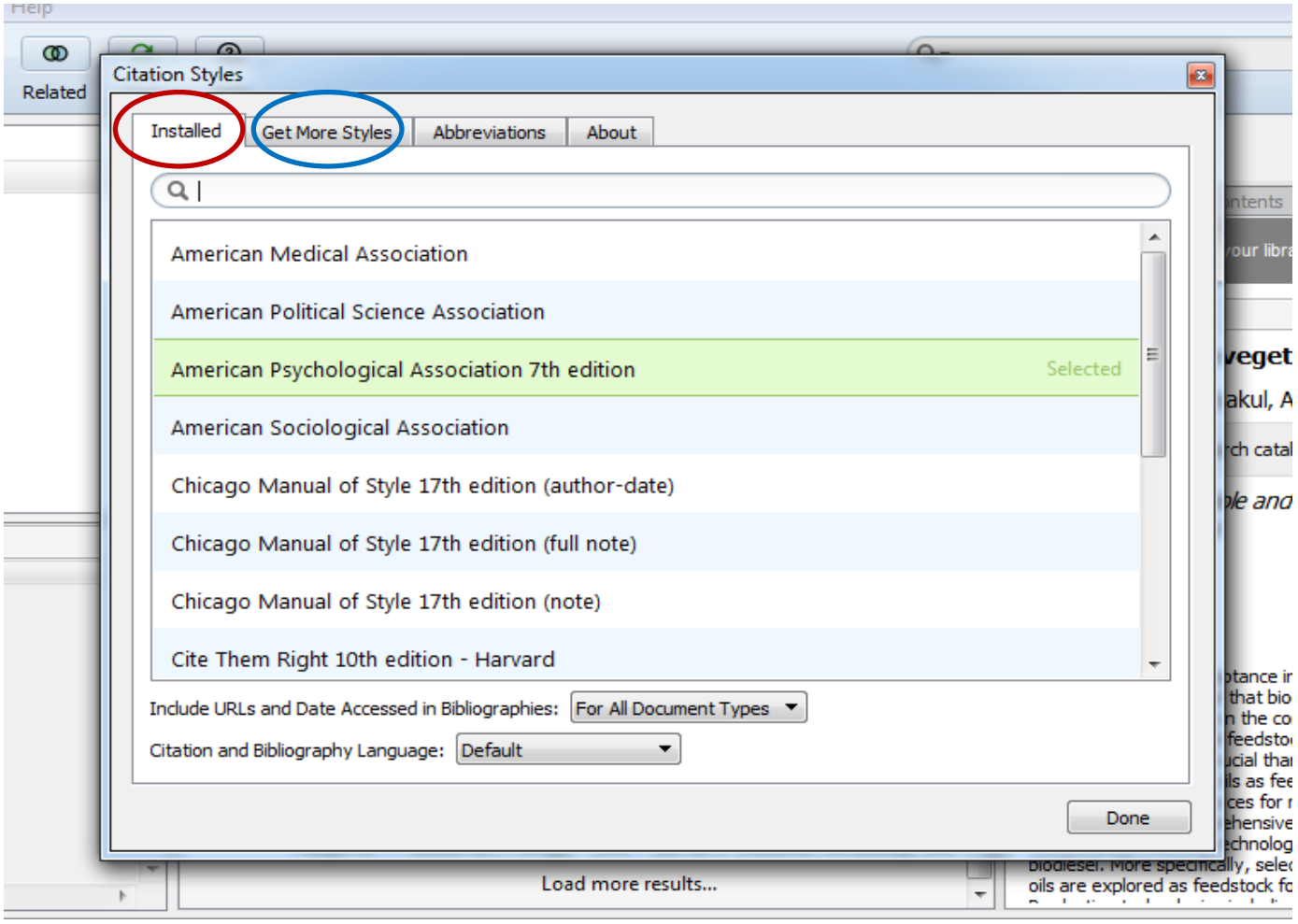


6- This will insert a list of all the references you have used when writing the document.

Changing the reference type

1- Sometimes, you are required to cite using a specific referencing style. You can change the referencing type using Mendeley. You can do this by clicking on “styles” and choosing “more styles…”



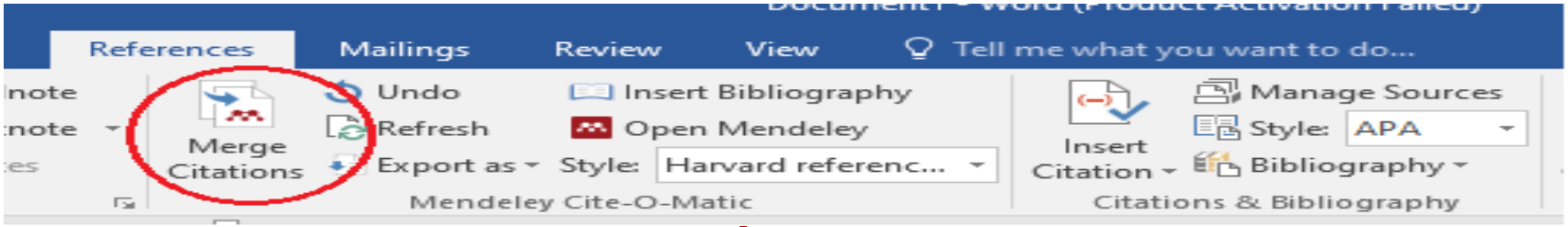

Citation Styles
Installed
Get More Styles
Abbreviations
About
American Medical Association
American Political Science Association
American Psychological Association 7th edition
Selected
American Sociological Association
Chicago Manual of Style 17th edition (author-date)
Chicago Manual of Style 17th edition (full note)
Chicago Manual of Style 17th edition (note)
Cite Them Right 10th edition - Harvard
Include URLs and Date Accessed in Bibliographies:
For All Document Types
Citation and Bibliography Language:
Default
Done
Related
Load more results...

How to merge citation

1- Cite both sources as shown:

(Huang et al., 2012) (Issariyakul & Dalai,2014)

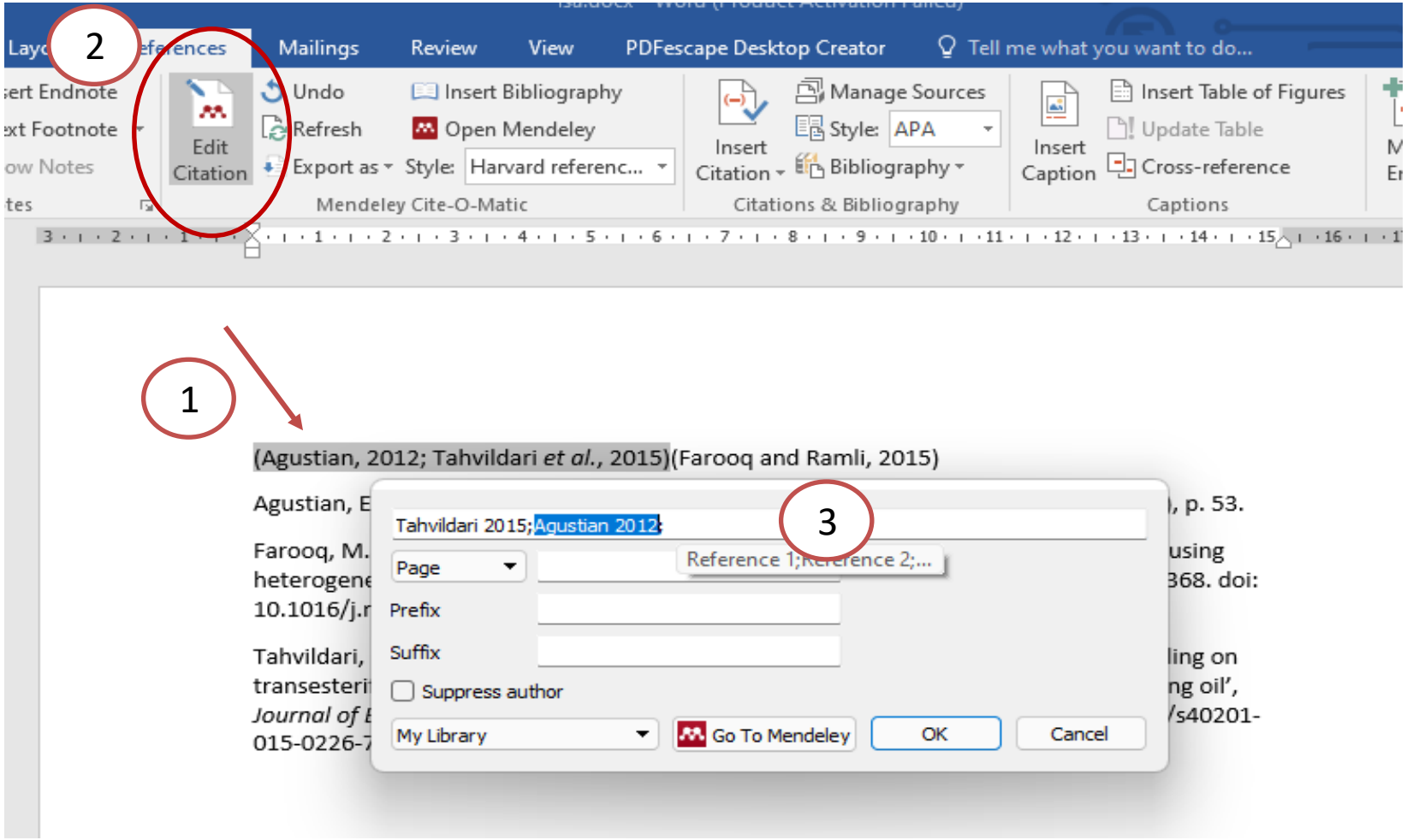
2- Highlight the citations and click on the “merge” option and the citations merge together.



(Huang et al., 2012; Issariyakul & Dalai, 2014)

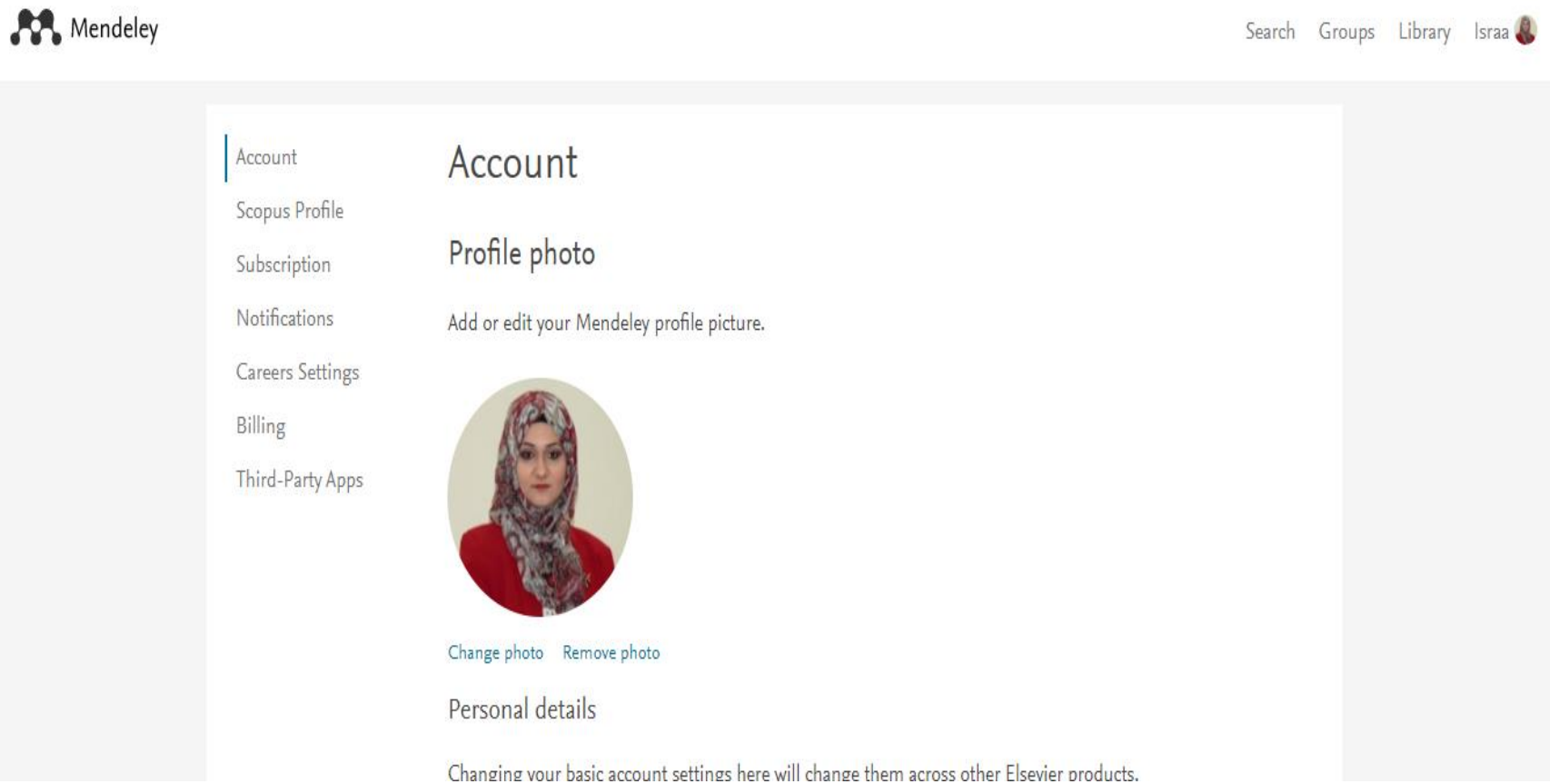
How to Edit citation

Highlight the citations and click on the “Edit Citation” option a small window will appear, Edit your references.

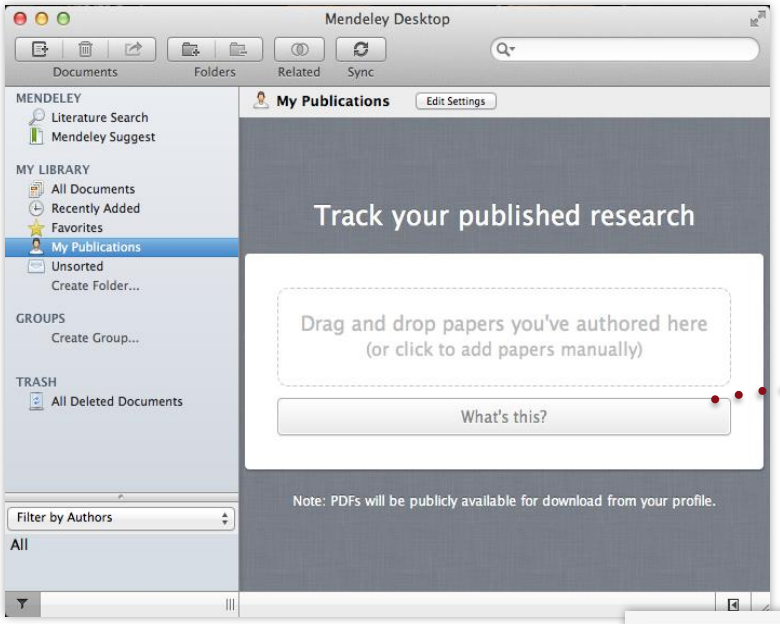


Collaborate
Join and Create Groups to Share References

Create Your Research Profile

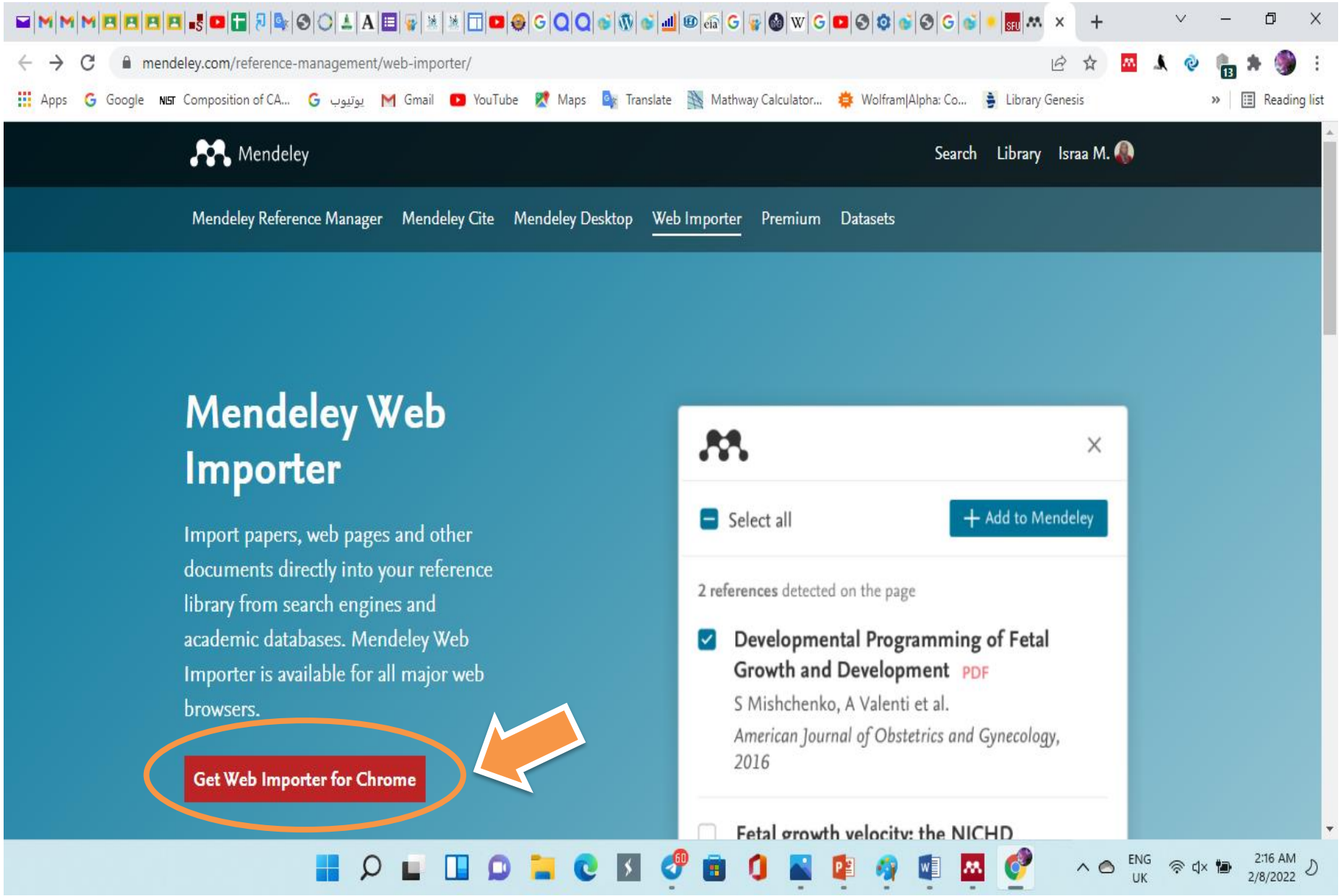


Showcase Your Publications



1. Add your own publications
2. Mendeley adds the PDFs to the public database
3. Showcase them on your profile

Mendeley Web Importer



Use Mendeley to:

- Collaborate, organize and discover, as well as use the citation plugin.
- Automatically generate bibliographies.
- Collaborate easily with other researchers online.
- Easily import papers from other research software.
- Find relevant papers based on what you’re reading.
- Access your papers from anywhere online.


THANK
YOU